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THE
Surgical Instruments of the Hindus

THE
SURGICAL INSTRUMENTS
OF THE HINDUS

Comparative Study of the Surgical Instruments of
the Greek, Roman, Arab and the Modern
European Surgeons

RINDRANĀTH MUKHOPĀDHYĀYA, B.A., M.D.

Griffith Prize Essay for 1909

In Two Volumes

Vol. II

396 Illustrations or 82 Plates

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PREFACE

Much trouble has been taken with our illustrations, but the author is fully conscious of their many defects. I am greatly indebted to several authors mentioned in the legends to the plates as the readers will find certain of their illustrations copied in this volume. It was found necessary in a comparative study of the surgical instruments used by the different nations of the world. It has been my wish to render due credit to all persons for the illustrations by which they may severally have contributed to the advancement of our knowledge of the subject, and I have never assumed to myself drawings, which belong to others. For those illustrations, not otherwise acknowledged, the author is solely responsible.

For his skill and patience in drawing and printing these figures I am glad to take this opportunity of thanking Mr K V Seyne.

The author deems it a pleasant duty to express his thanks to the University of Calcutta for the liberality displayed in the matter of illustrations.

80, RUSSA ROAD NORTH, }
Calcutta, February, 1914 } G N MUKHOPĀDHYĀYA.

ABBREVIATIONS

Adams	The Genuine Works of Hippocrates Translated by Francis Adams, LL D. in two volumes (Sunderham Society)
A H	Catalogue of Surgical Instruments and Appliances Allen and Hanburys Ltd 1903
A S	Catalogue of Surgical Instruments and Appliances Arnold and Sons 1895
Anderson	See Wellcome
B B	Surgical Instruments and Appliances Burgoyne, Birbidges & Co
C C G	Collection de Chirurgiens Grecs Bibliothèque Nationale Paris
Ericksen	The Science and Art of Surgery By Sir John Eric Ericksen Bt, F R S, LL D Tenth Edition 1895
Esmarch	The Surgeon's Handbook of the Treatment of Wounded in War By Dr Friedrich Esmarch
Heath	Minor Surgery and Bandaging By C Heath, F R C S Second Edition
I M G	Indian Medical Gazette, 1904
K S	Catalogue of Surgical Instruments Kny- Scheerer & Co
Milne	Surgical Instruments in Greek and Roman Times By T S Milne, M A, M D, 1907
Porter	The Surgeon's Pocket-Book The Best Treatment of Wounded in War By Surgeon-Major T H Porter 1891
Princep	Princep's (Thomas') Indian Antiquities

- Swain Surgical Emergencies By W P Swain,
F R C S Third Edition 1880
- Thakore Saheb History of Aryan Medical Science By H. H
Sir Bhagvat Singh Jee, K C I E, M D,
D C L, LL D, F R C P E Thakore Saheb
of Gondal 1896
- Waggett Diseases of the Nose By E B Waggett,
M A, M B, B C 1907
- Wellcome Third Report of the Wellcome Research
Laboratories at the Gordon Memorial College,
Khartoum
- White The Veterinary Art By James White 1851
-

CORRECTIONS

Page	37	Plate	XIX	Fig	5	Read	Samipatra	for	Amipatra
	88	„	XLIV	„	2	„	3	„	2
„	88	„	XLIV	„	3	„	2	„	3
	103	„	LII	„	209	„	4	„	209
„	108	„	LIV	„	5	„	6	„	5
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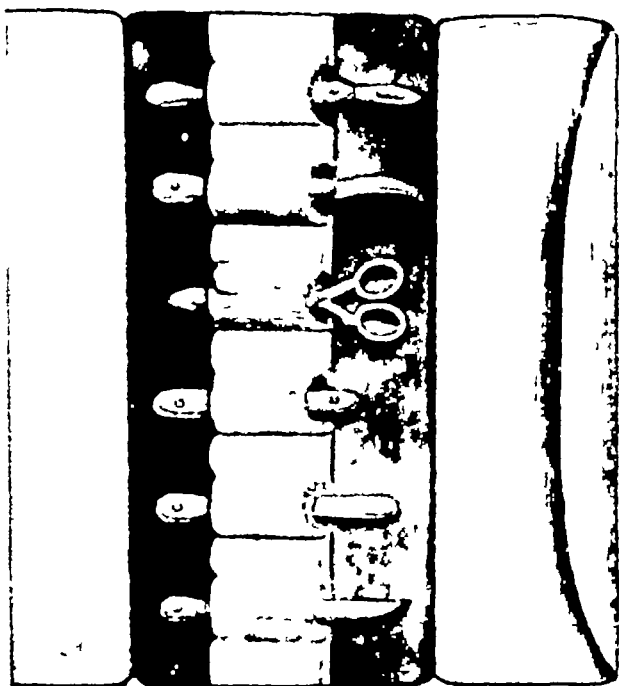
THE SURGICAL INSTRUMENTS OF THE HINDUS

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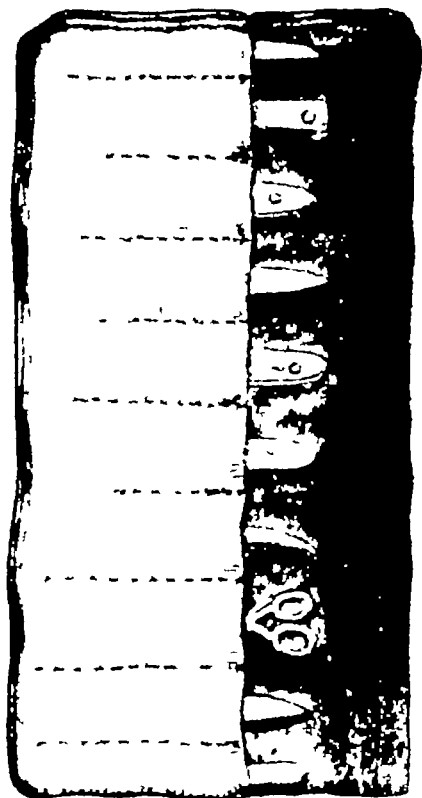
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The Surgical Instruments of the Hindus.

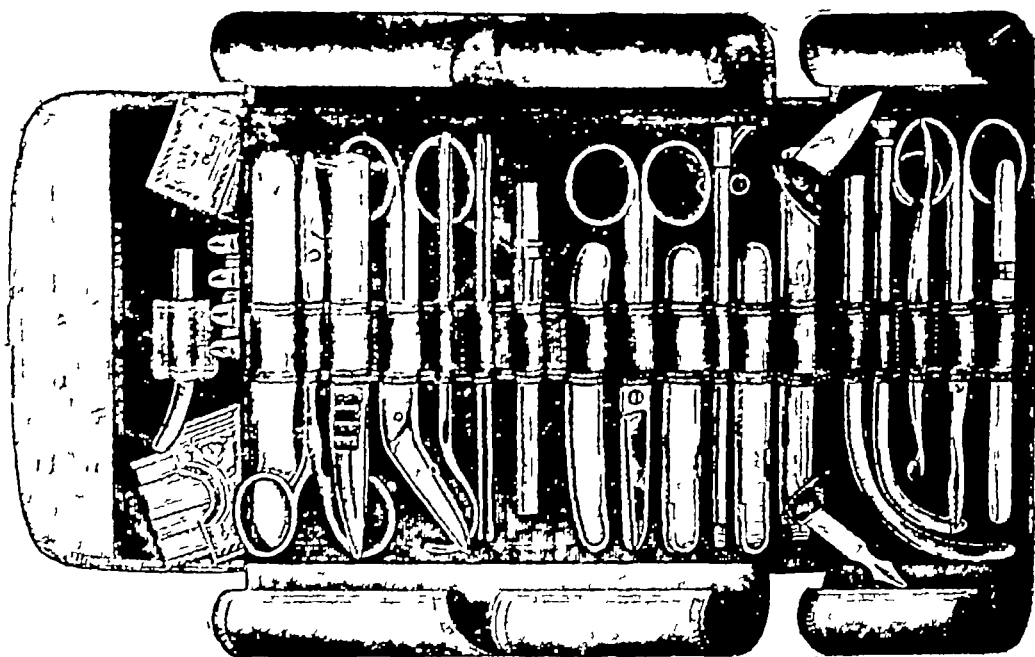
Plate II



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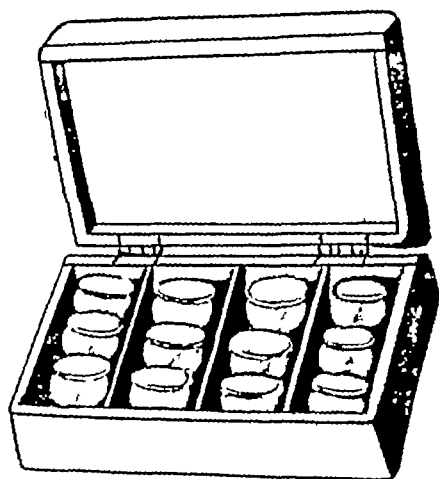
THE SURGICAL INSTRUMENTS OF THE HINDUS.

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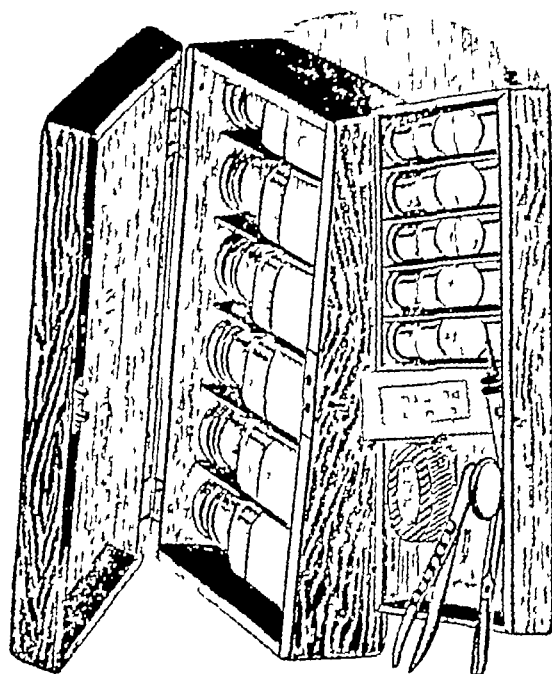
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The Surgical Instruments of the Hindus

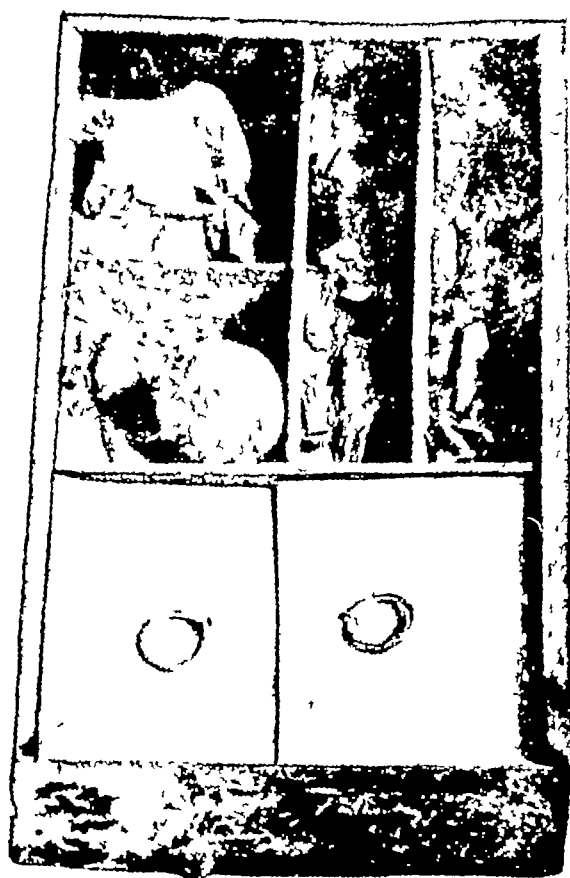
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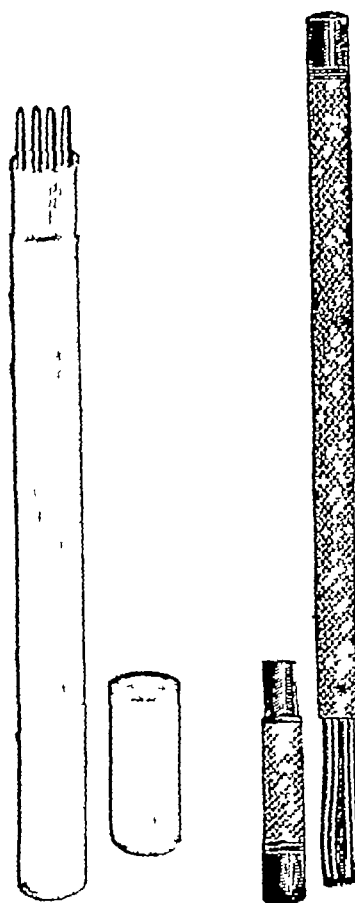
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THE SURGICAL INSTRUMENTS OF THE HINDUS

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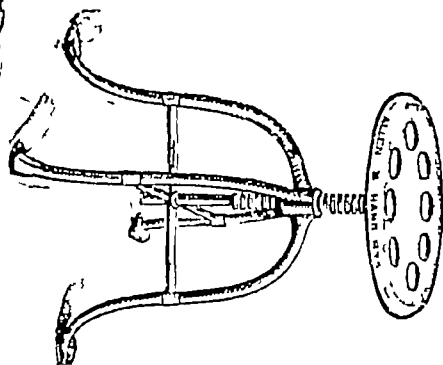
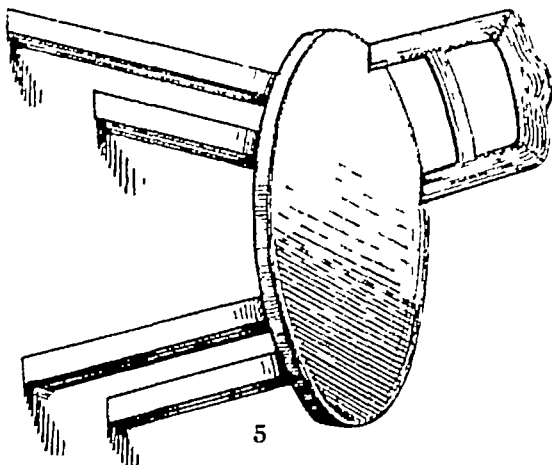
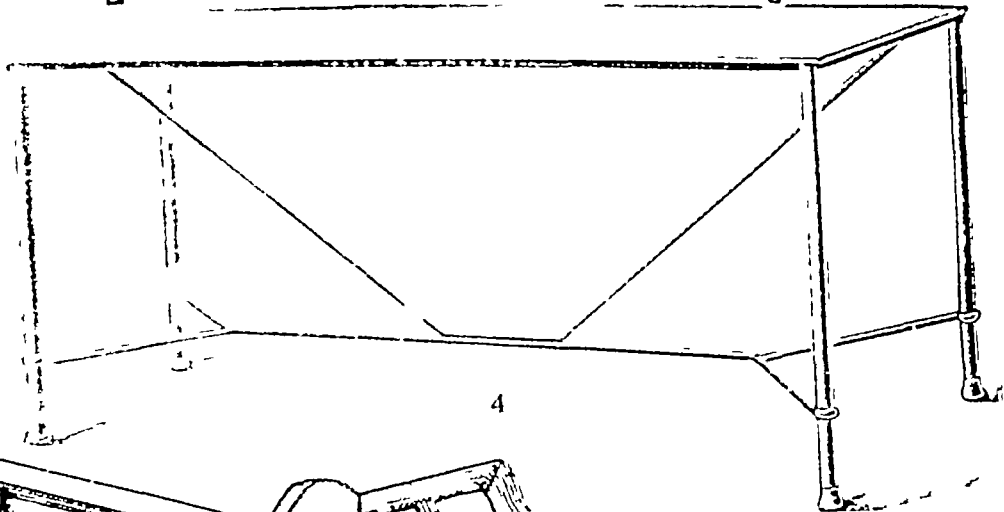
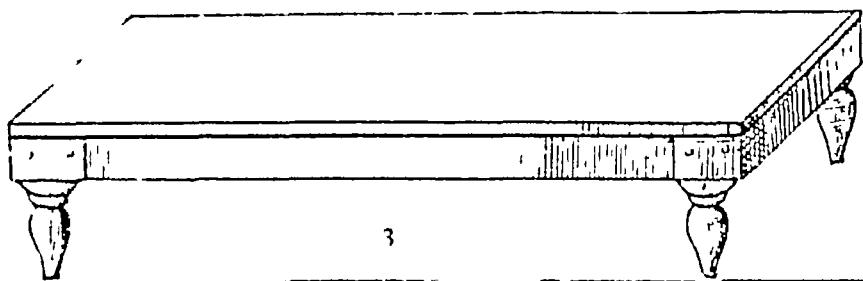
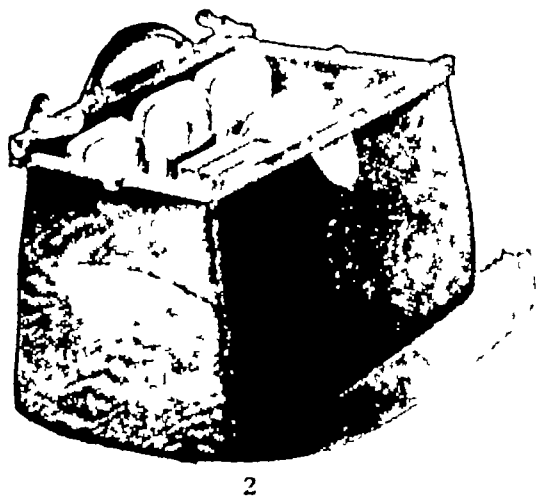
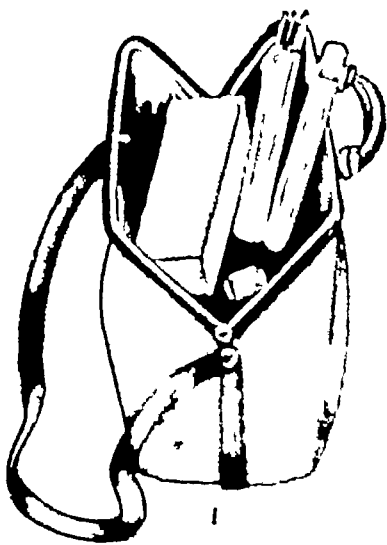


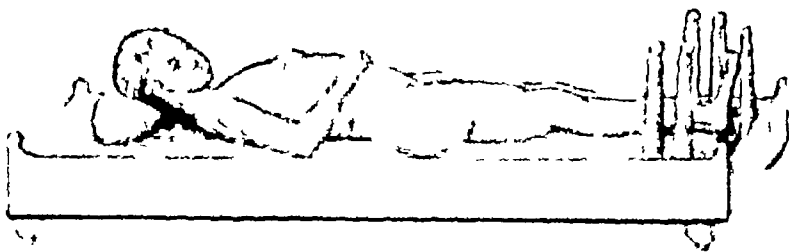
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KAPĀTA-ŚĀYANA OR FRACTURE-BED OF THE HINDUS

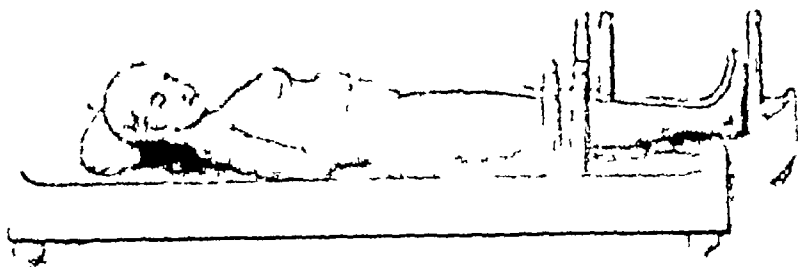
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The Surgical Instruments of the Hindus

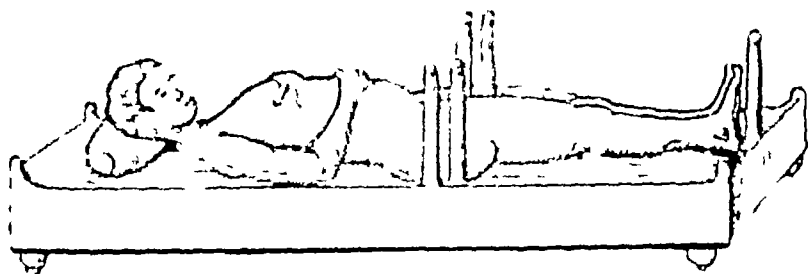
Plate A



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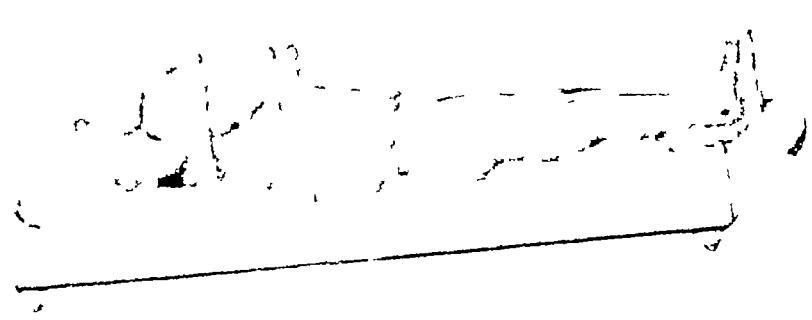
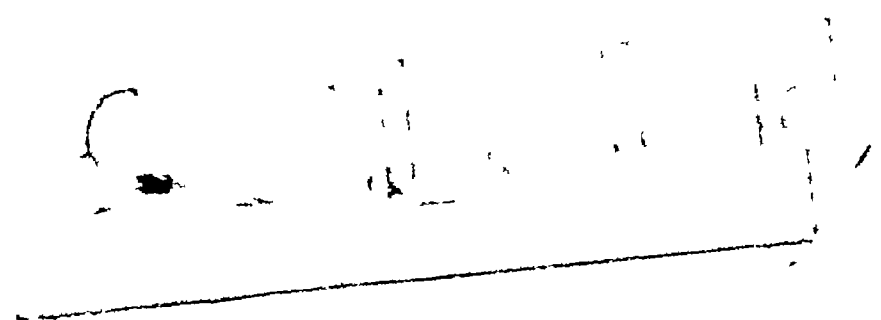


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(2)



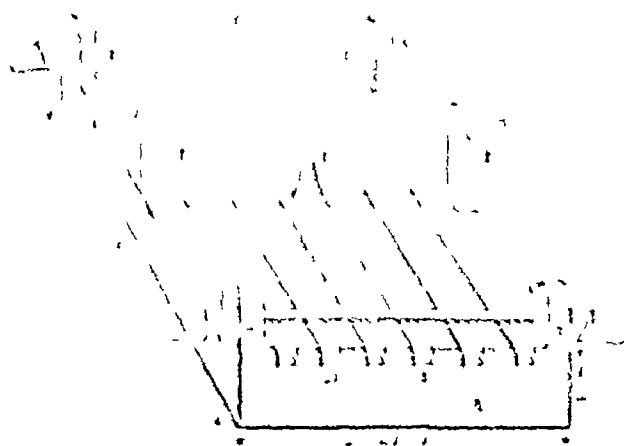
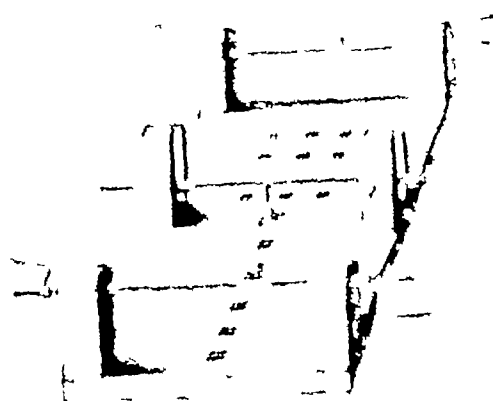
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A A board, 6 cubits long, 2 broad and 12 inches thick, not 13 as incorrectly stated by M Littre	
B The feet of the Axles, which are short	
CC Axle-ties	
DD Grooves 3 inches deep, 3 broad, separated from one another by 4 inches	
E A small post or pillar, fastened in the middle of the machine in a quadrangular hole	
F Pillars a foot long	
G A cross-beam laid on the pillars FF, which can be placed at different heights by means of holes in the pillars	

The Sut, or Silt, treatment of the Hindur

to A. H.



1
2

PLATE VIII

FIGURE

PAGE

- 1 —Representation of the mode of reducing dislocation of the thigh outwards, as given by M Litté (Œuv d'Hipp, tom iv, p 305) 89

A mistake in the figure given by M Litté is here corrected

A A lever applied to the nates of the luxated side, and acting from without inwards, in order to bring the head of the bone into its cavity

B Another lever, held by an assistant, put into one of the grooves of the machine, and intended to act against lever A

C Groove in which the end of the lever A takes its point of support

D The luxated member

EE Extension and counter-extension

Adams Vol II Pl V Fig 1

- 2 —The double inclined plane (Planum inclinatum duplex) framed out of some boards and provided at the sides with wooden pegs, by which the borders of the quilled horse hair mattress, supporting the leg, are pressed against the limb, Esmarch Fig 201

The Surgical Treatment of the Hemorrhoid

by

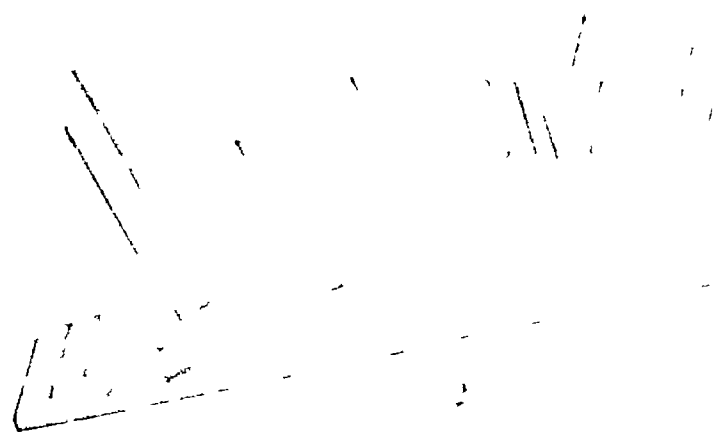


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PLATE X

FIGURE

PAGE

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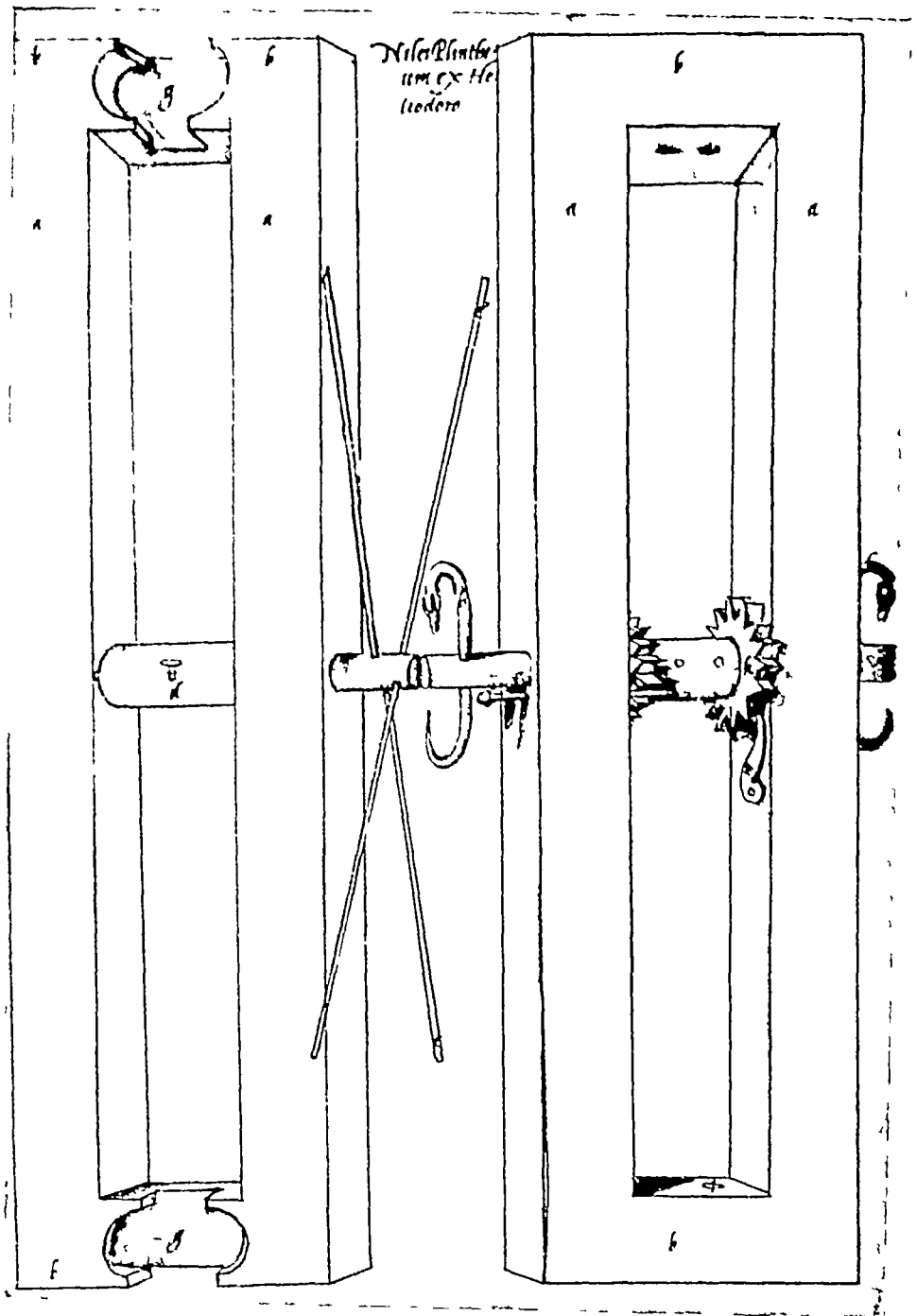


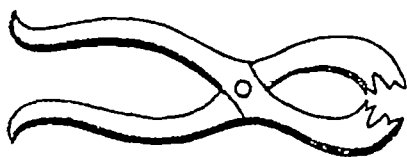
PLATE XI

THE SVASTIKA YANTRA OR CRUCIFORM INSTRUMENTS

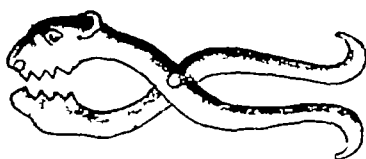
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The Surgical Instruments of the Hindus.

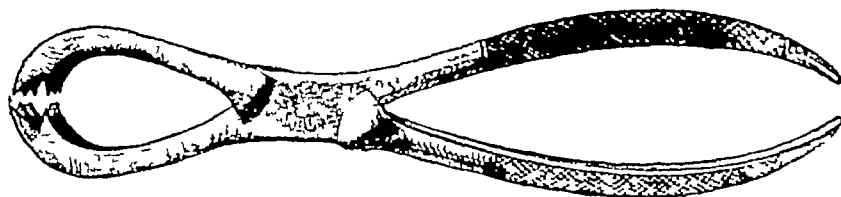
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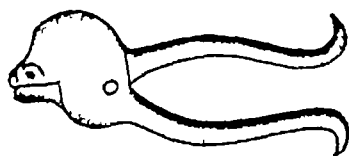
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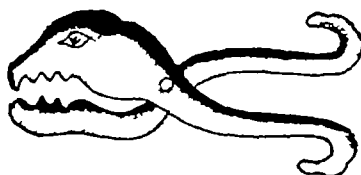
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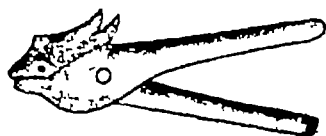
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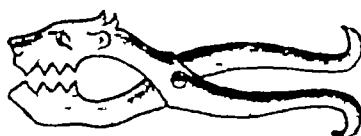
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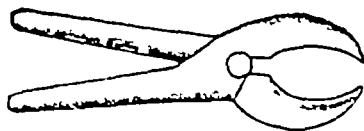
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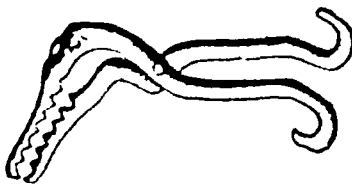
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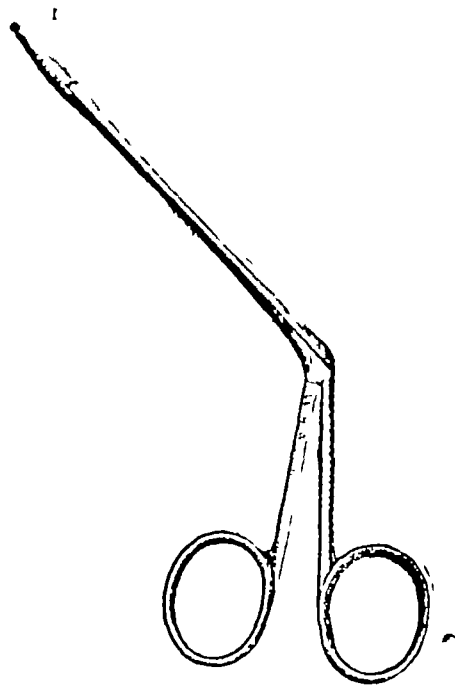
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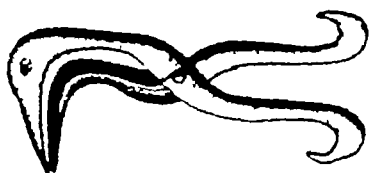
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THE SVASTIKA YANTRA OR CRUCIFORM INSTRUMENTS

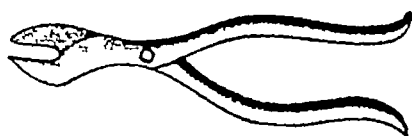
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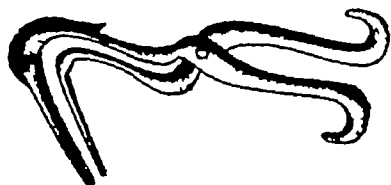
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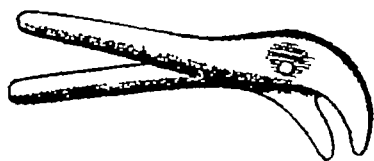
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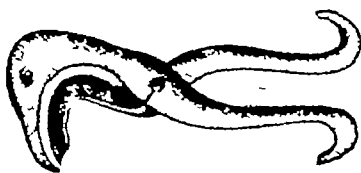
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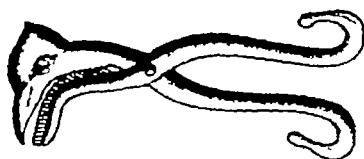
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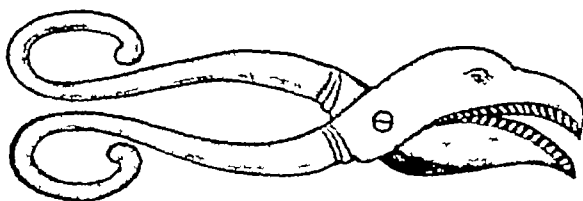
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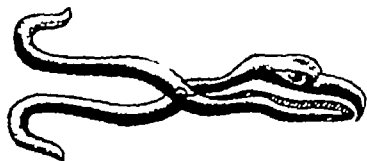
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Plate XIV

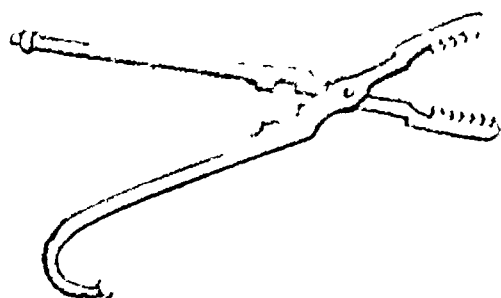
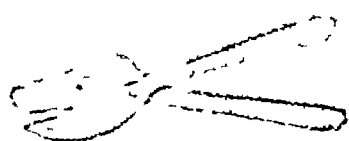


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The Surgical Instruments of the Hindus

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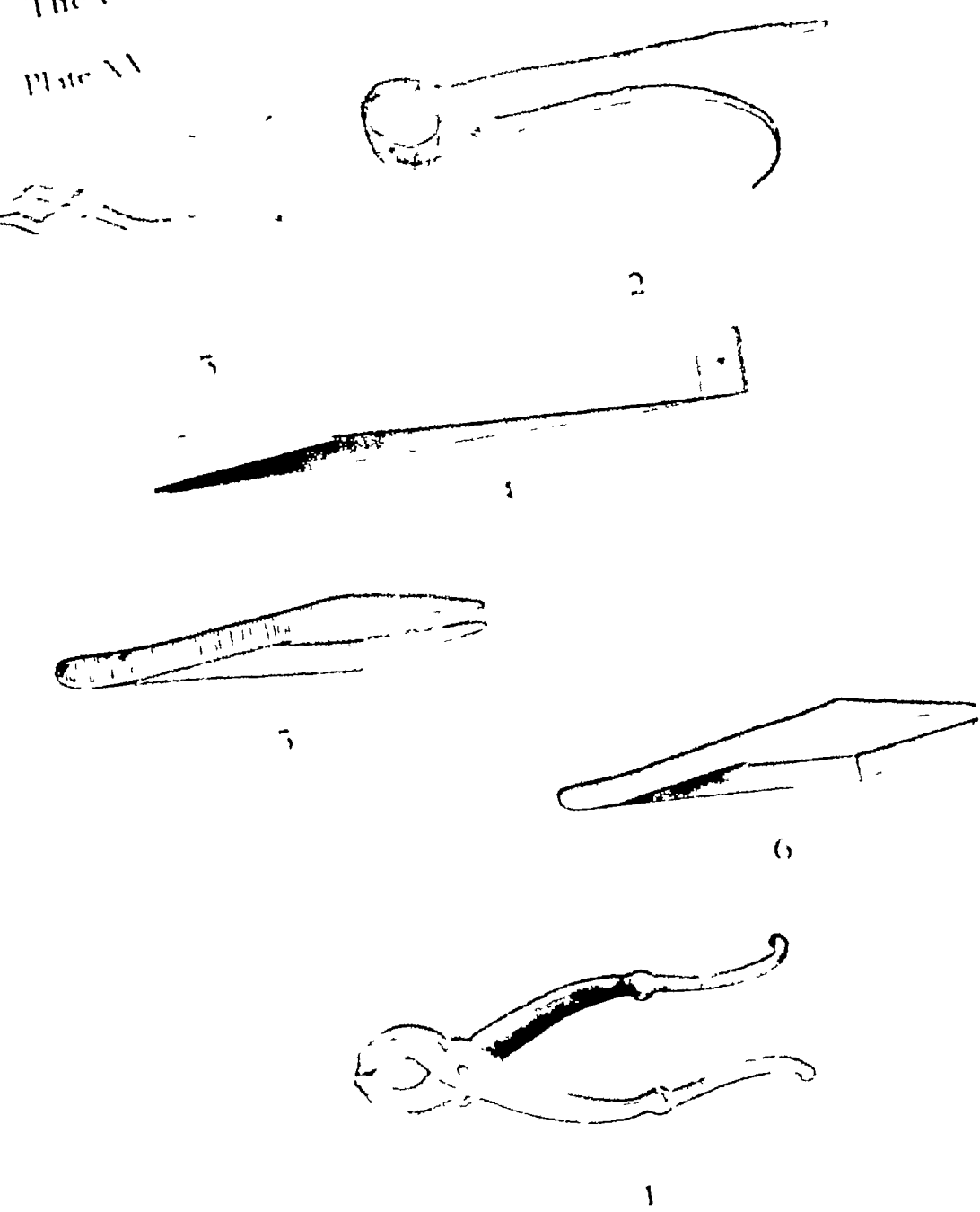


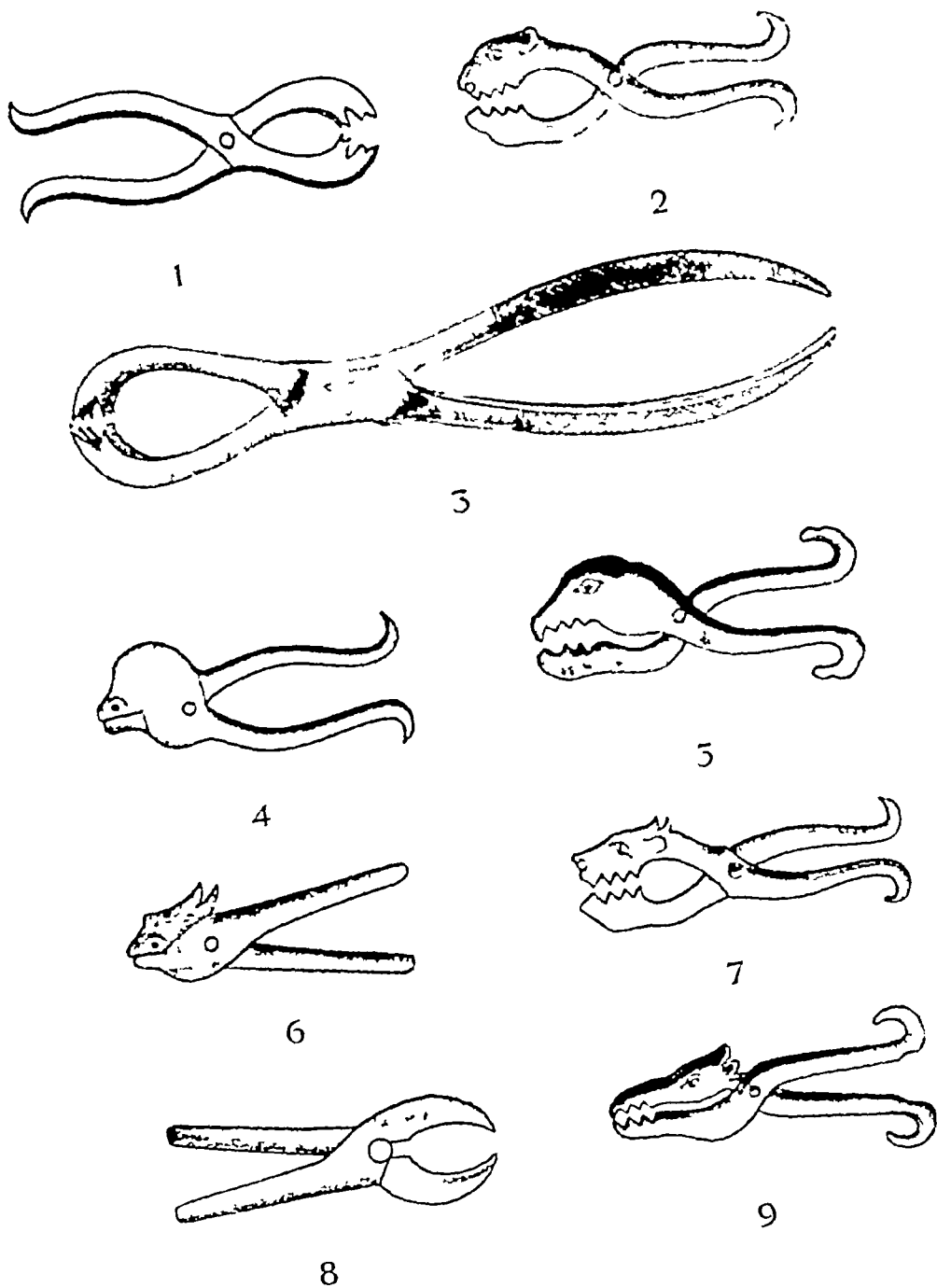
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The Surgical Instruments of the Hindus.

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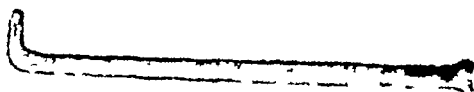


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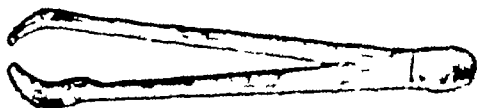
Plate XVII



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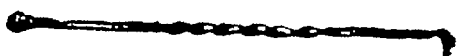
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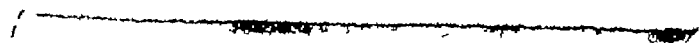
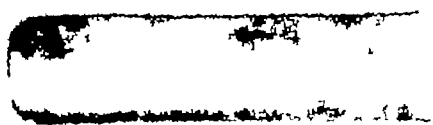
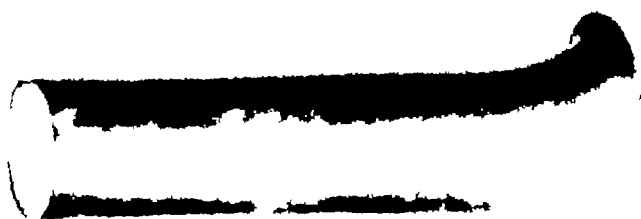


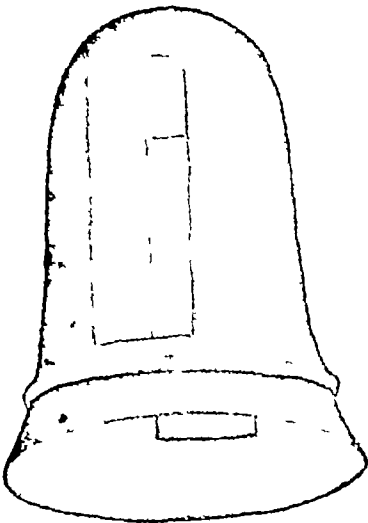
PLATE XIX

THE NĀDĪ YANTRA OR TUBULAR INSTRUMENTS

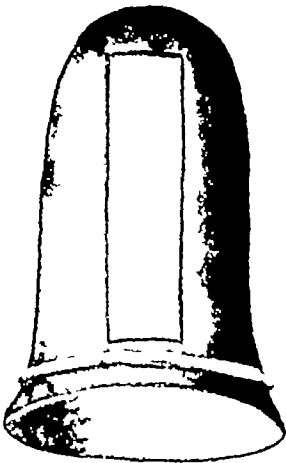
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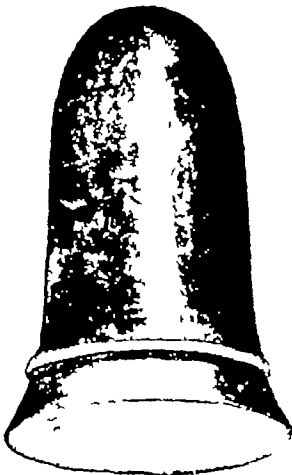
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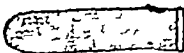
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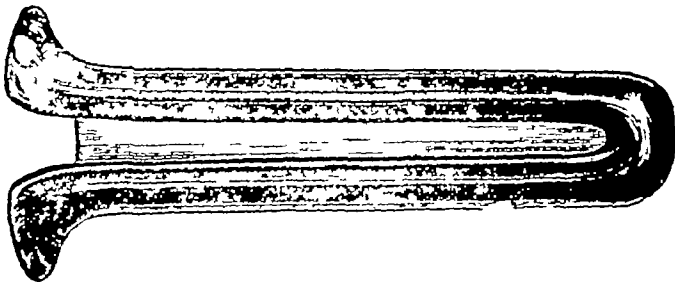
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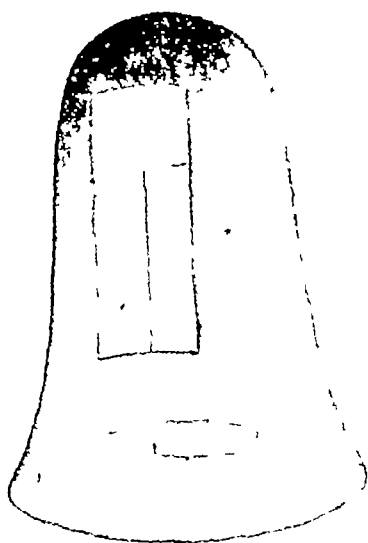
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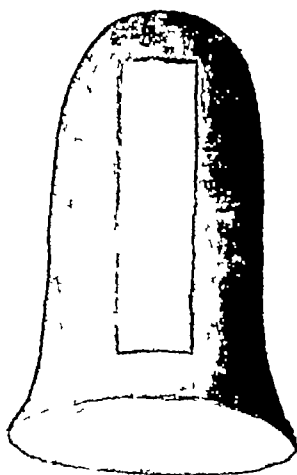
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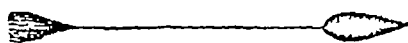
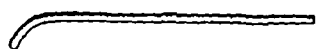
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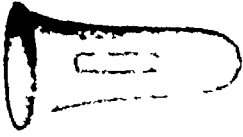
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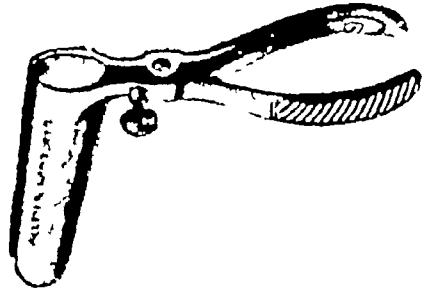
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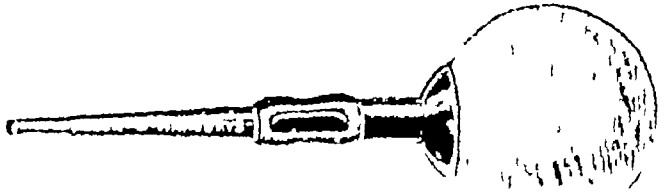
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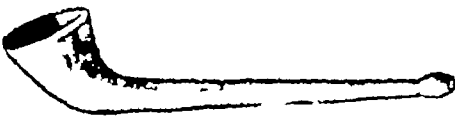
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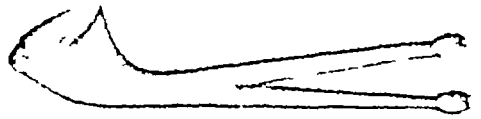
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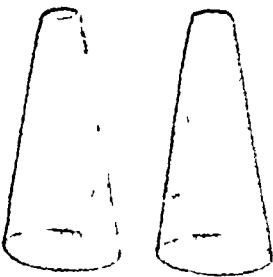
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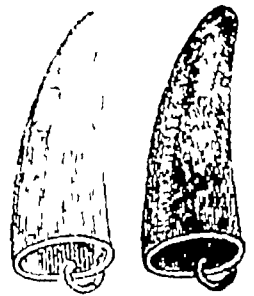
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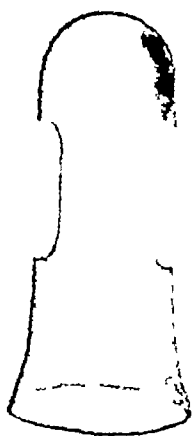
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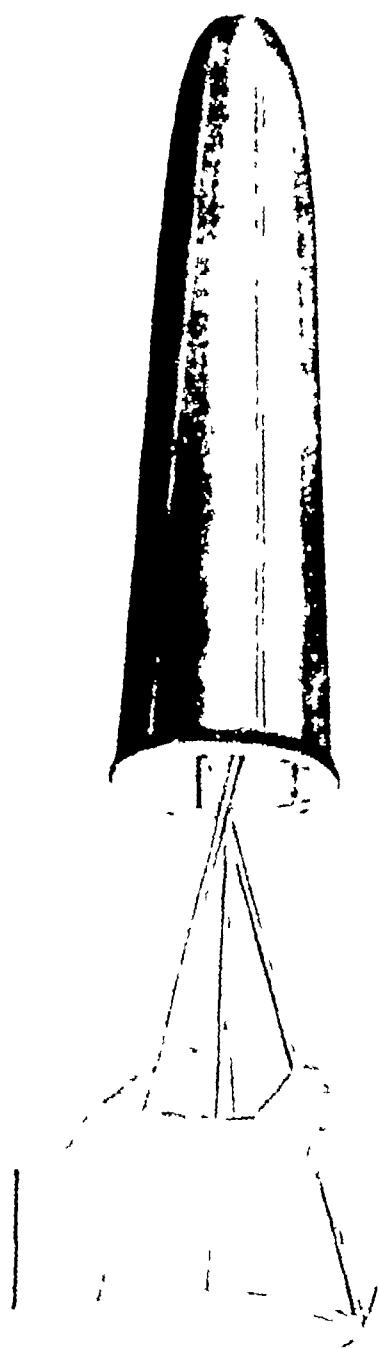
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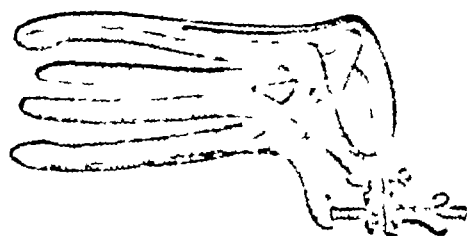
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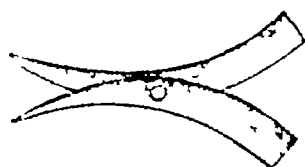
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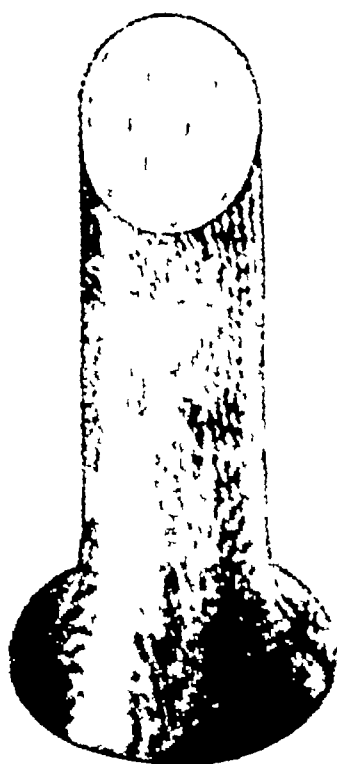
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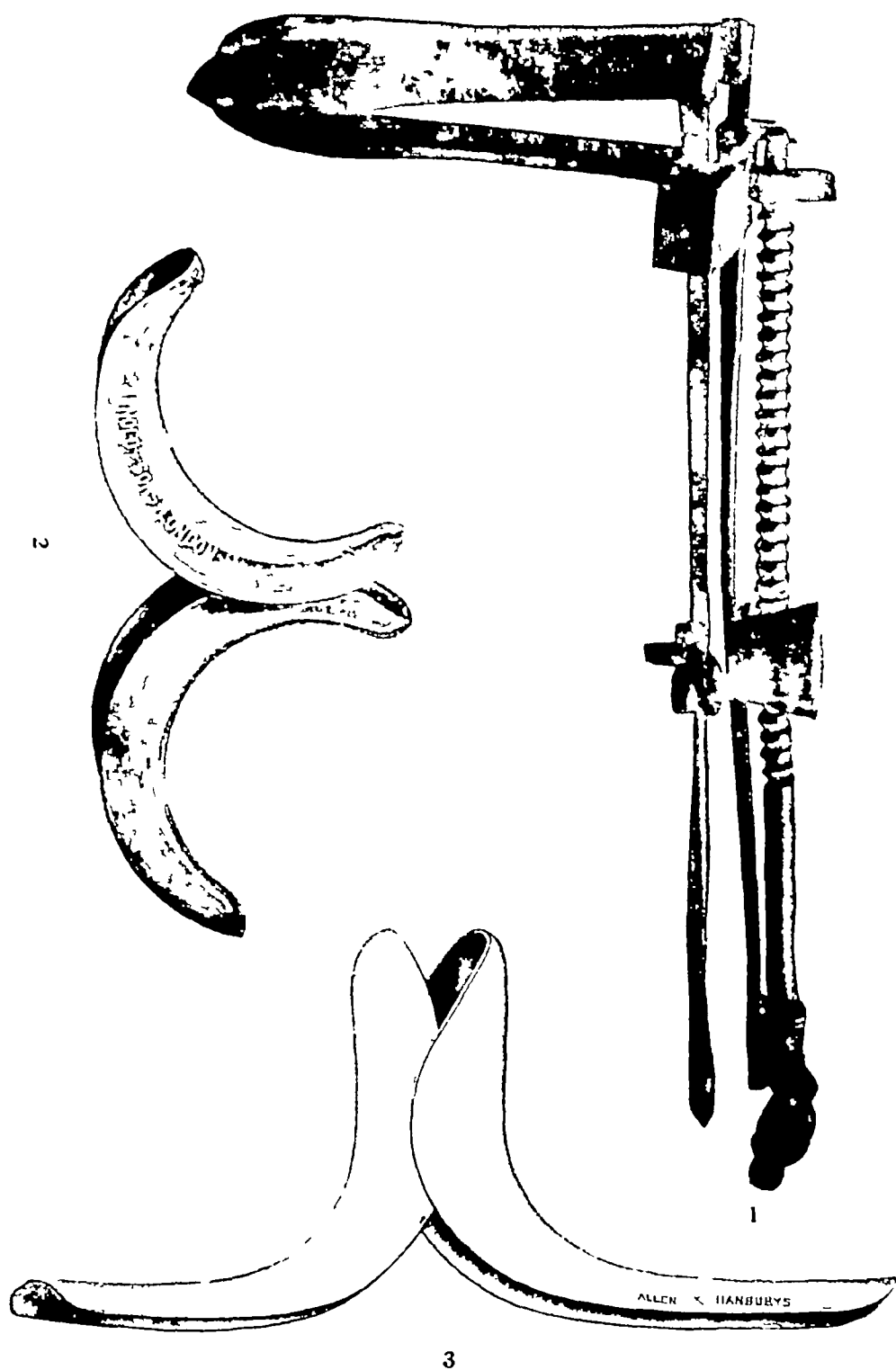


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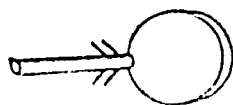
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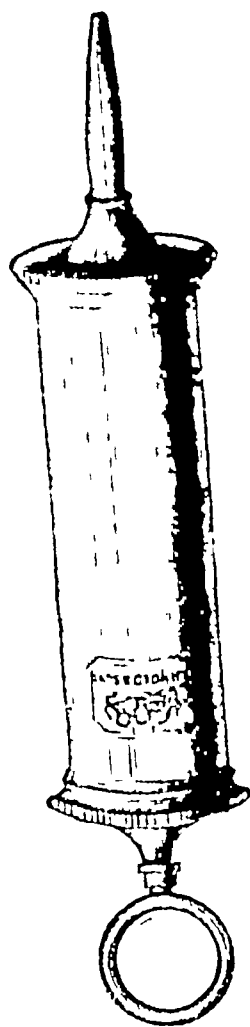
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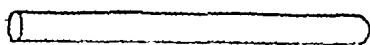
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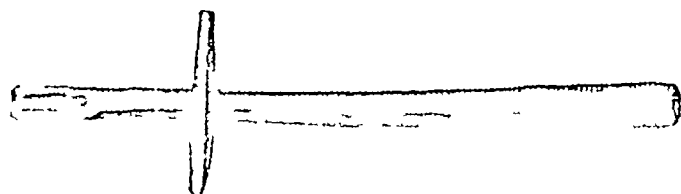
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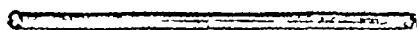
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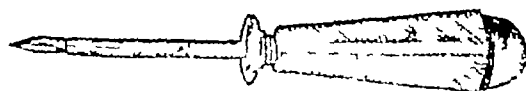
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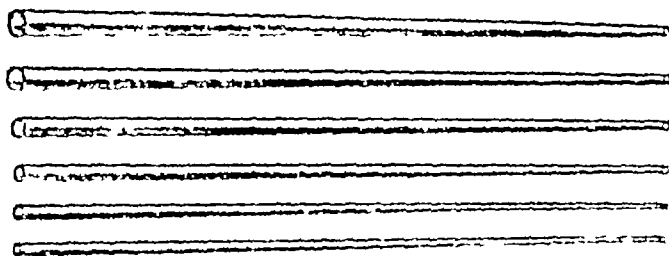
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TUBULAR INSTRUMENTS FOR URETHRAL STRICTURE

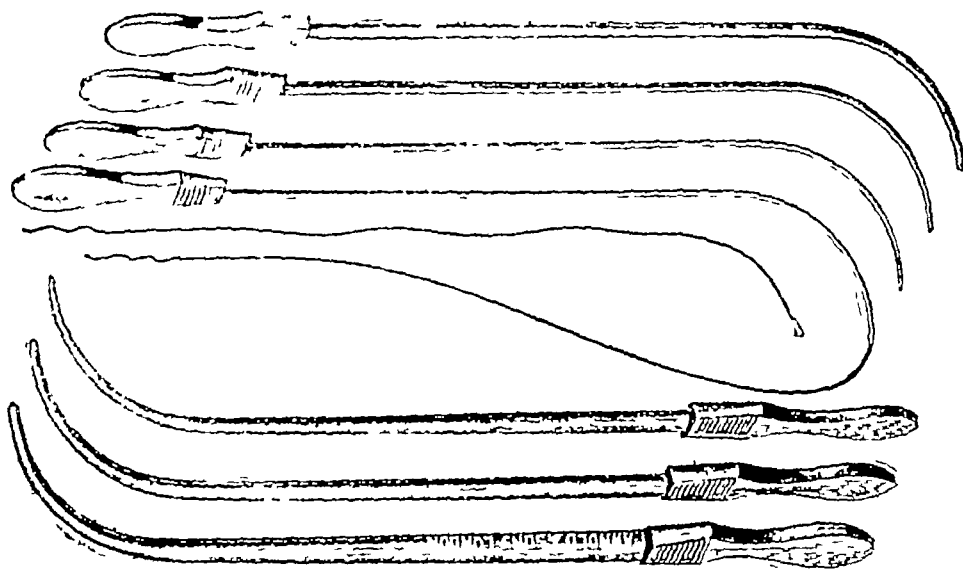
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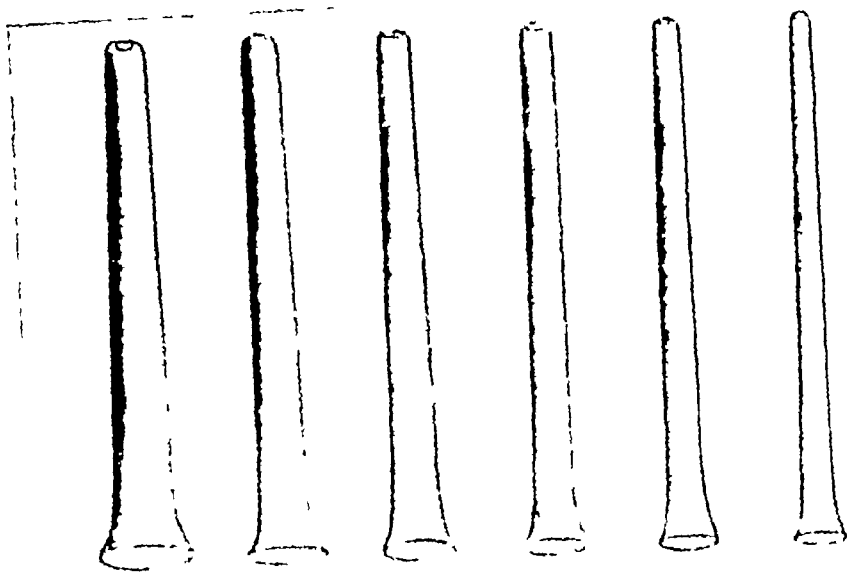
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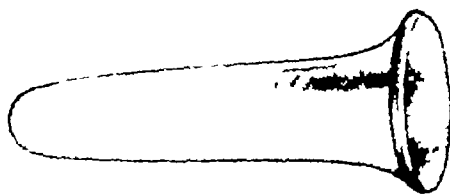
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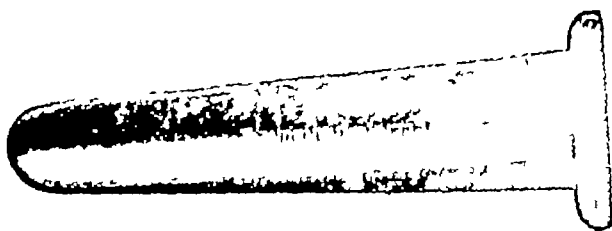
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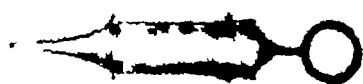
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VASTI YANTRA OR RECTAL CLYSTER

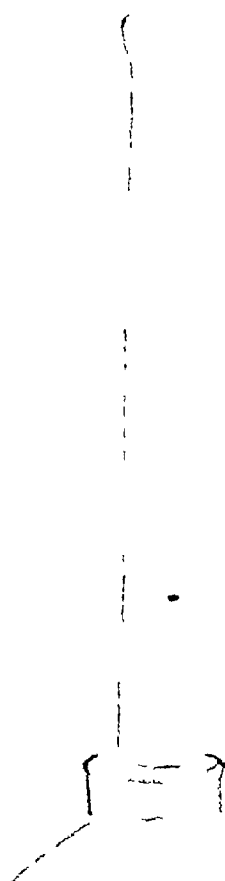
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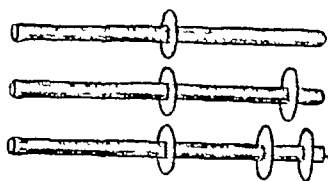
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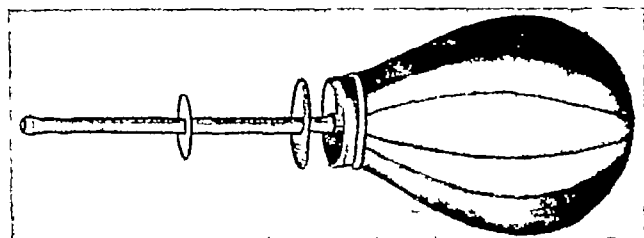
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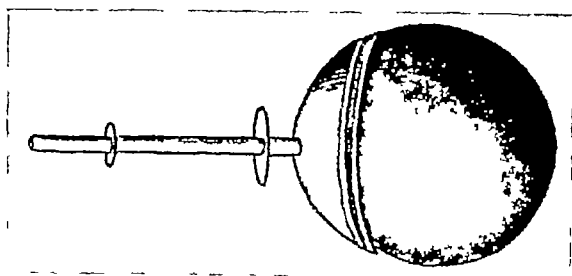
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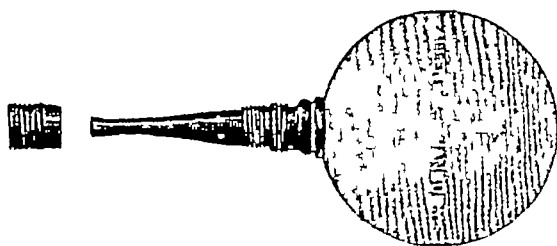
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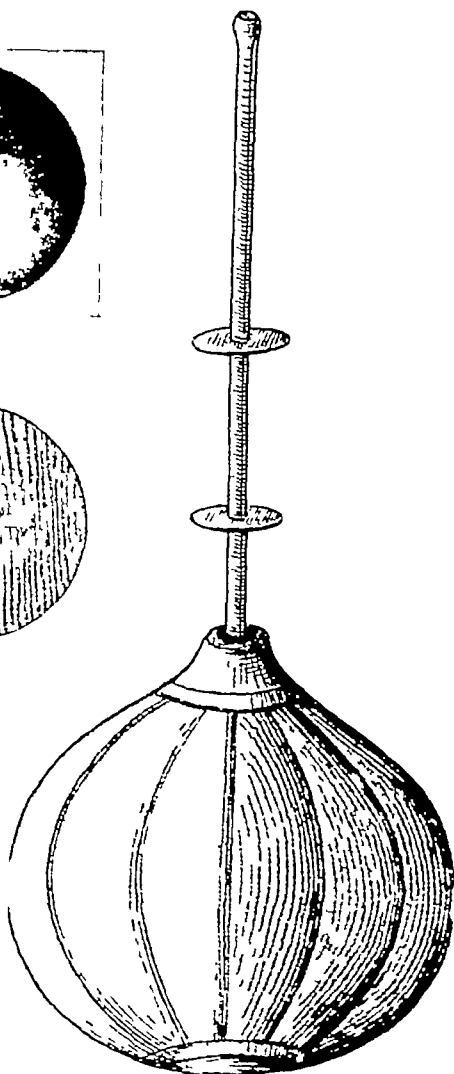
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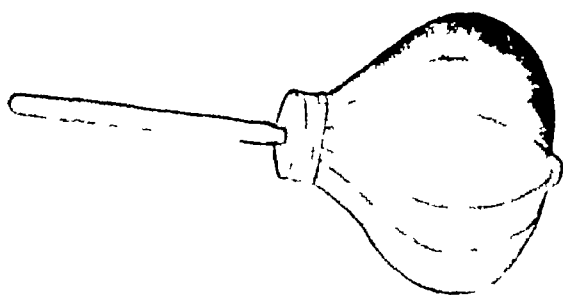
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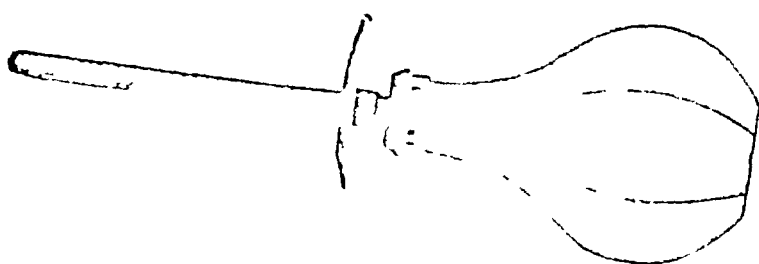
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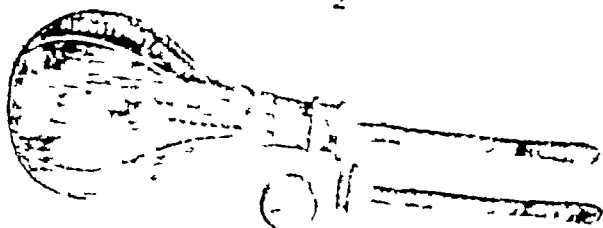
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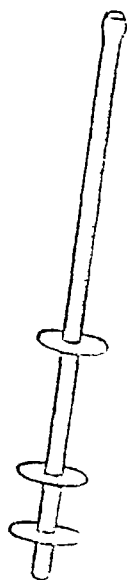
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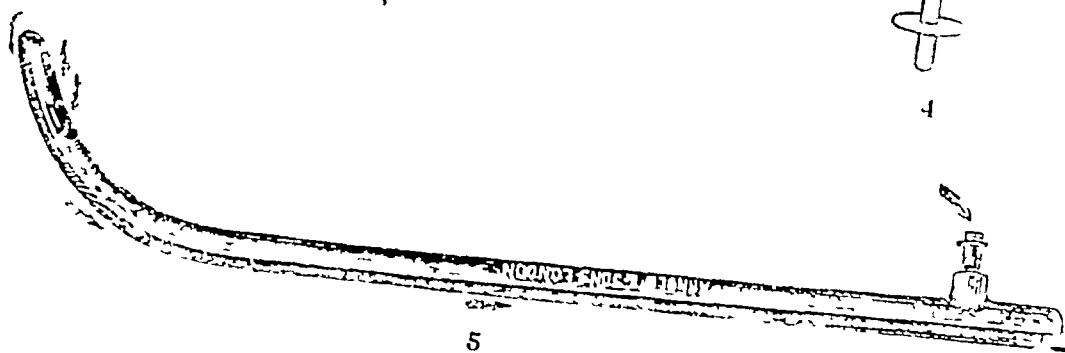
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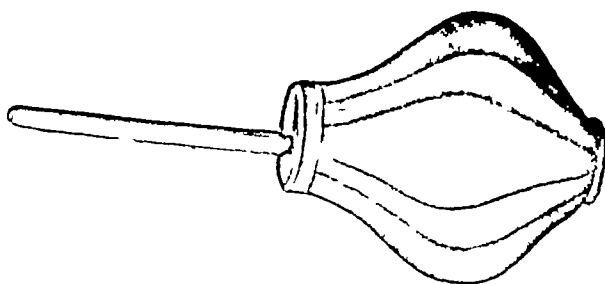
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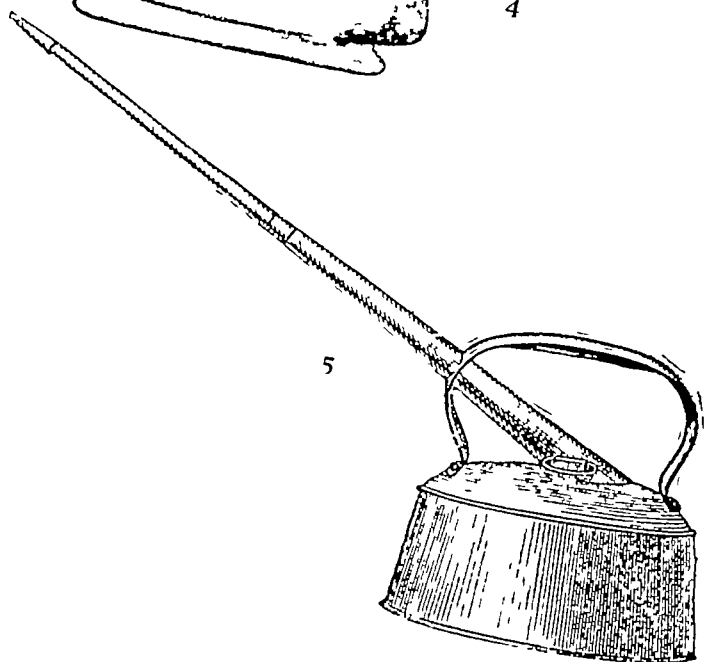
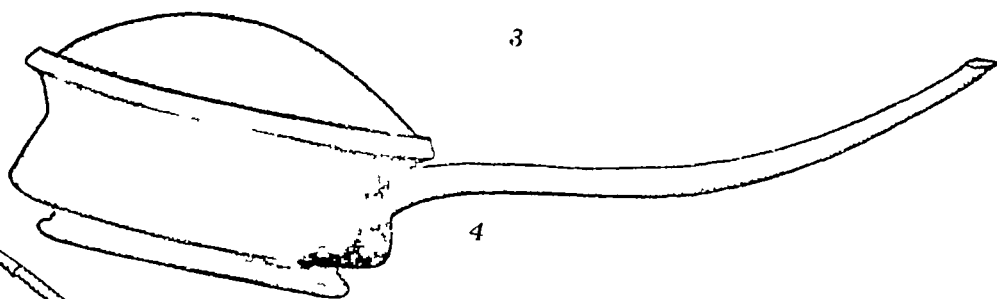
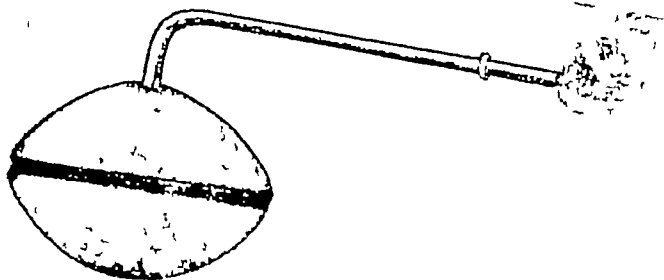
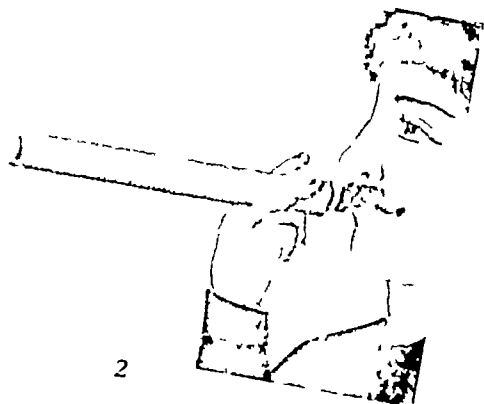
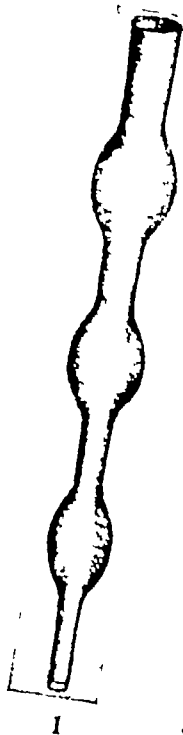
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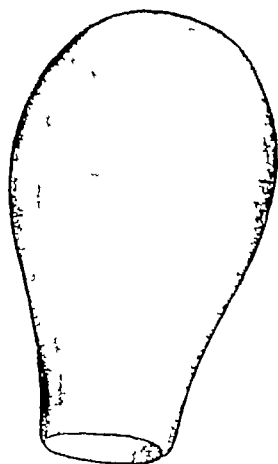
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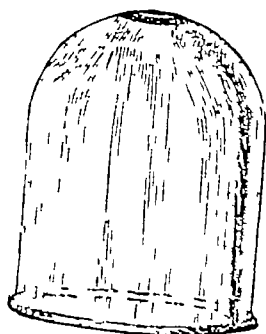
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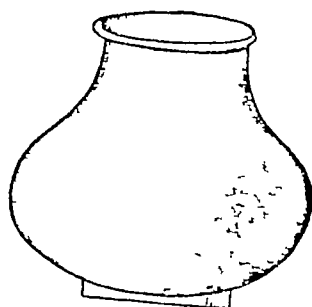
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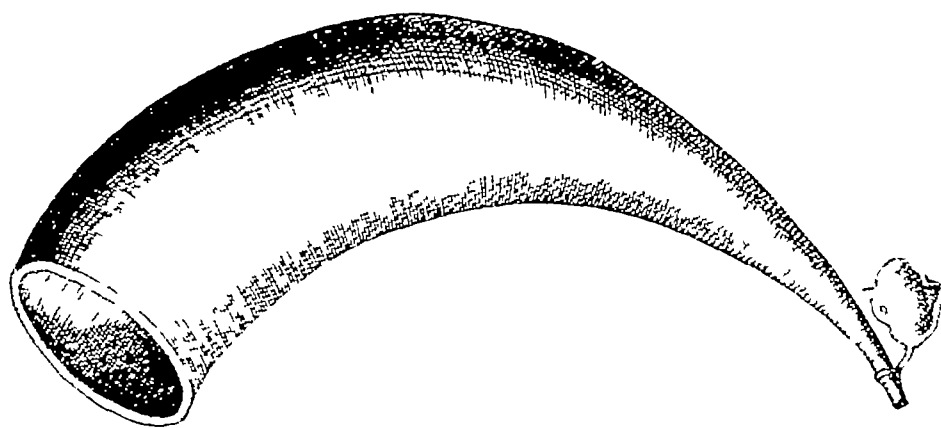
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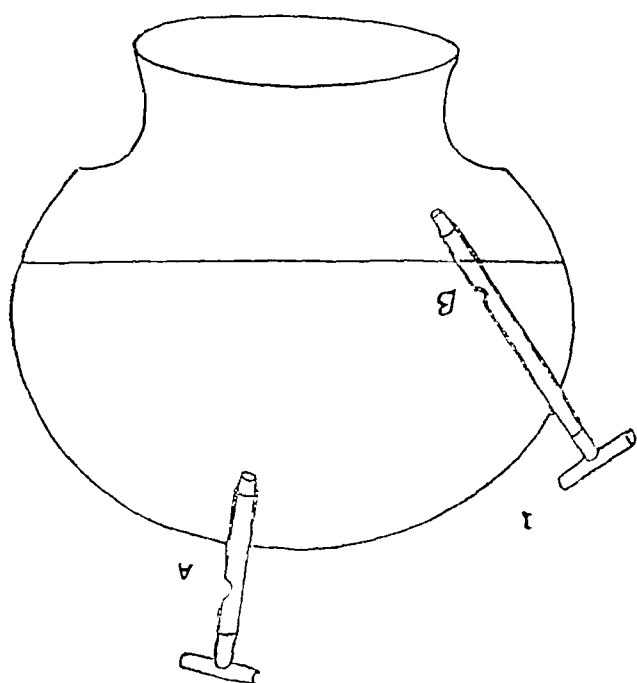
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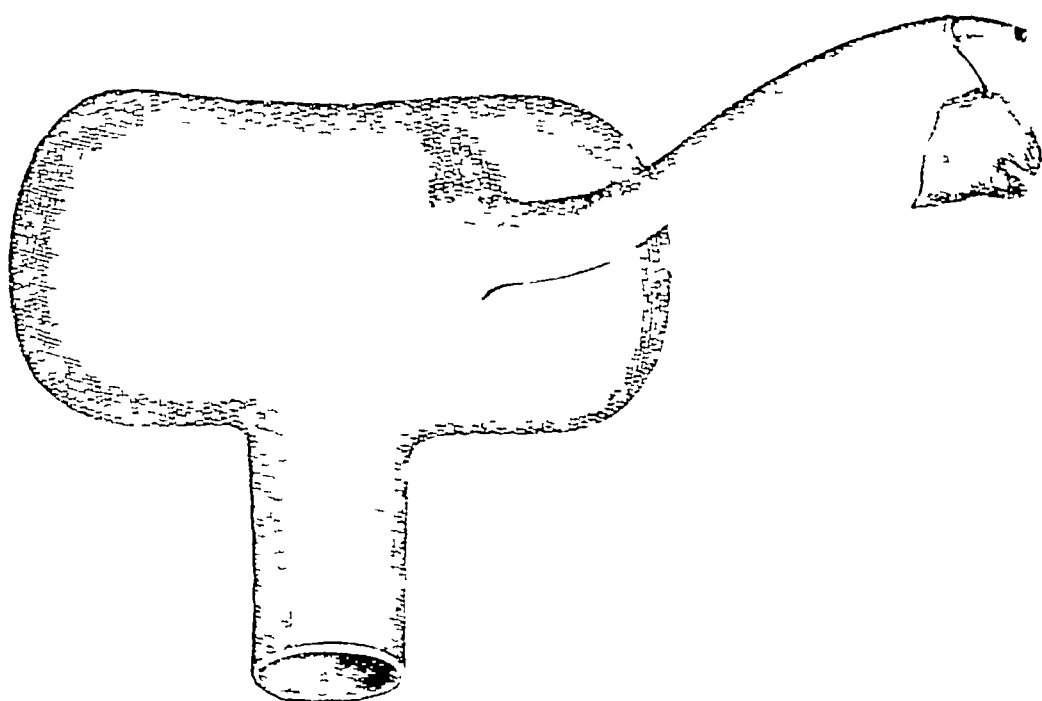
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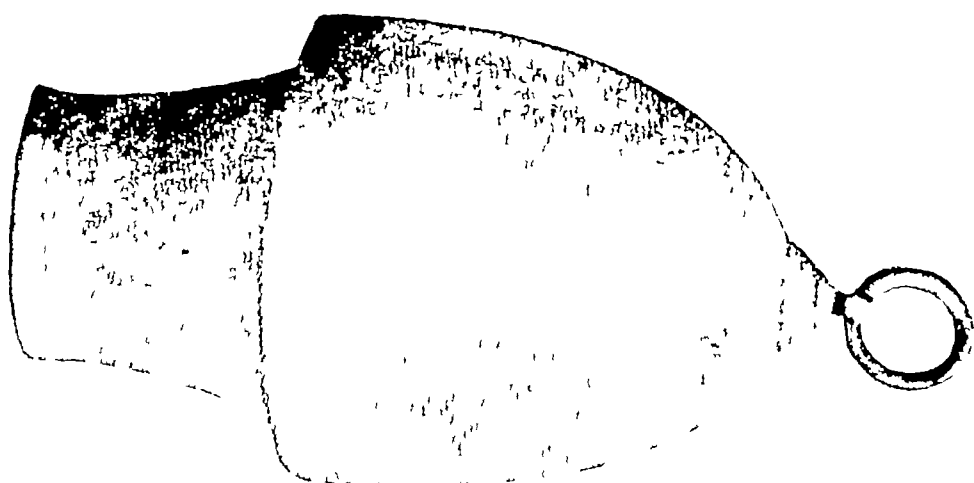
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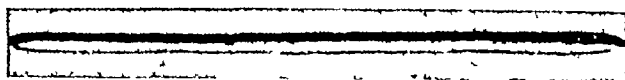
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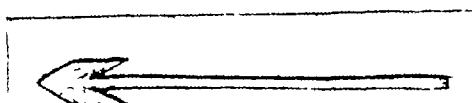
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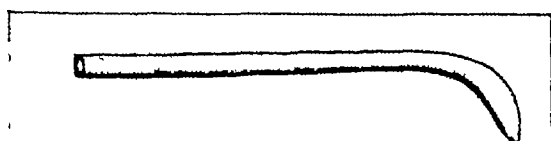
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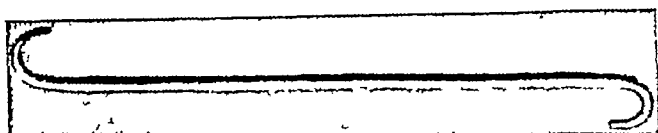
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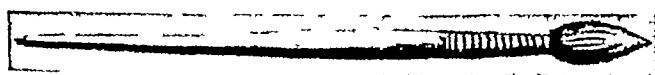
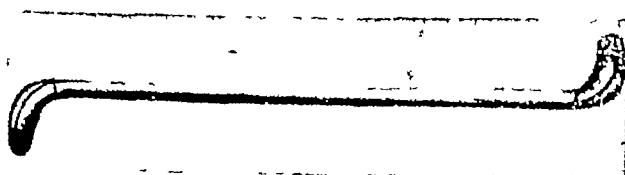
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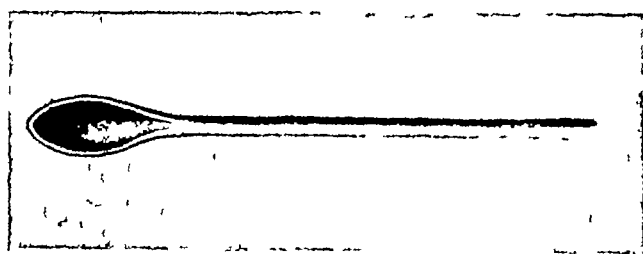
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ŚALĀKĀ OR RODS

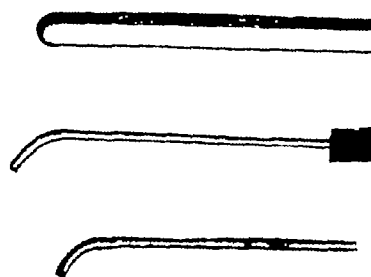
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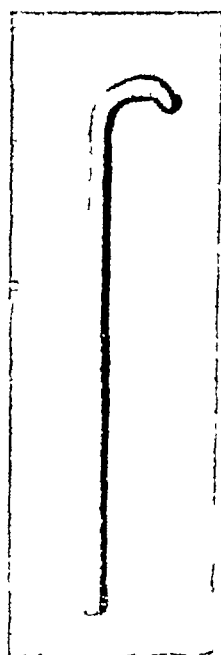
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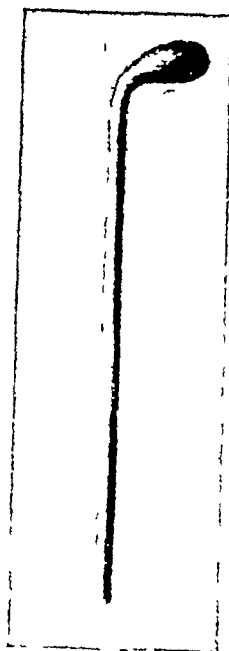
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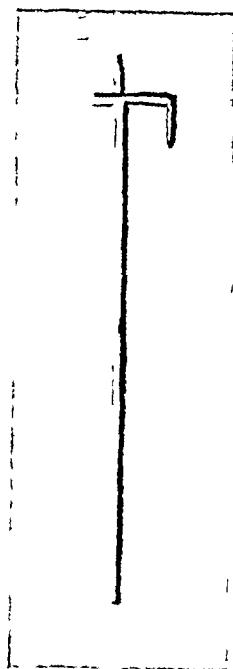
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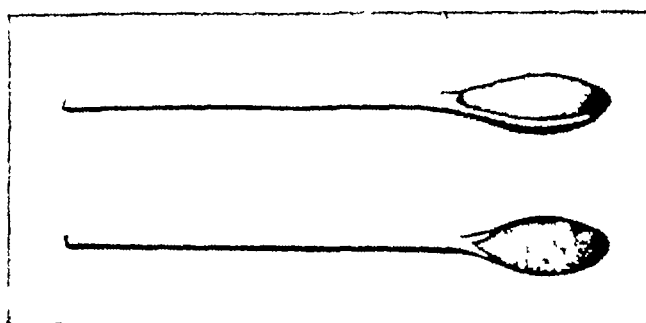
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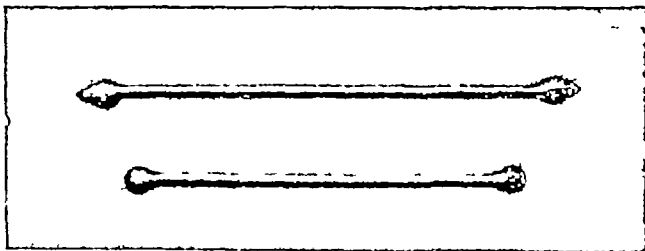
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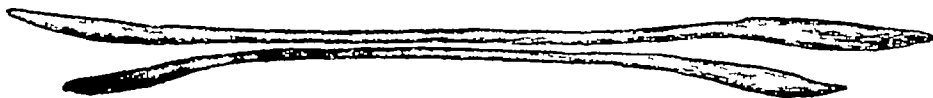
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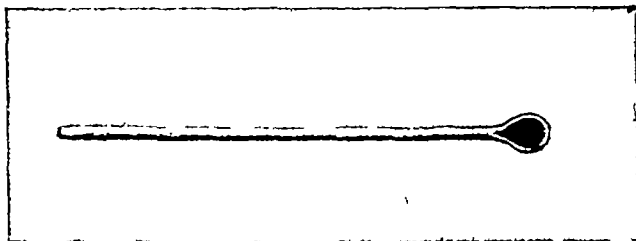
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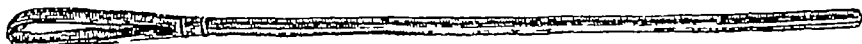
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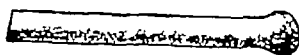
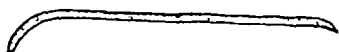
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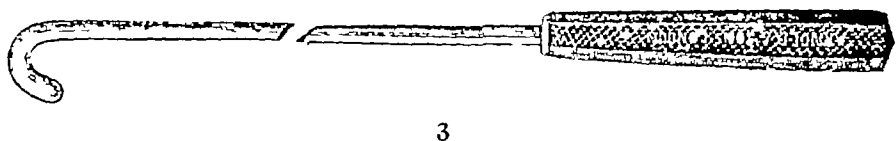
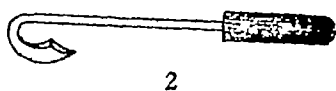
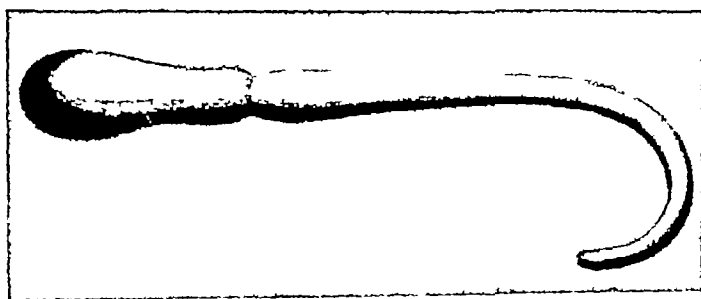


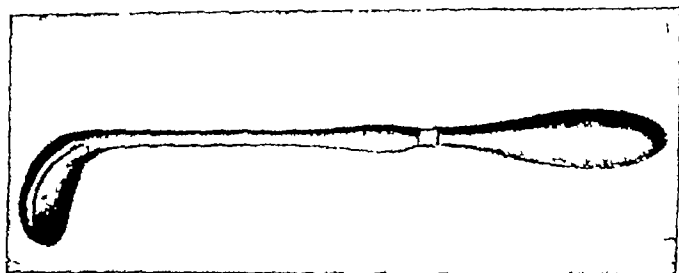
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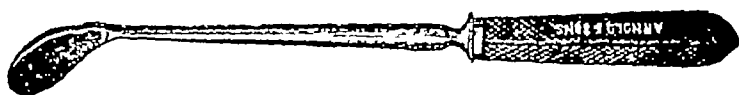
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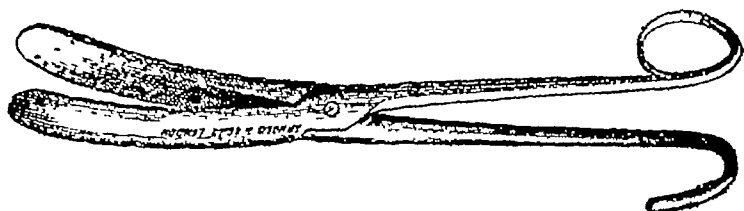
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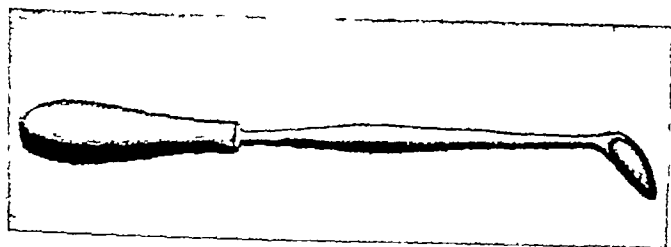
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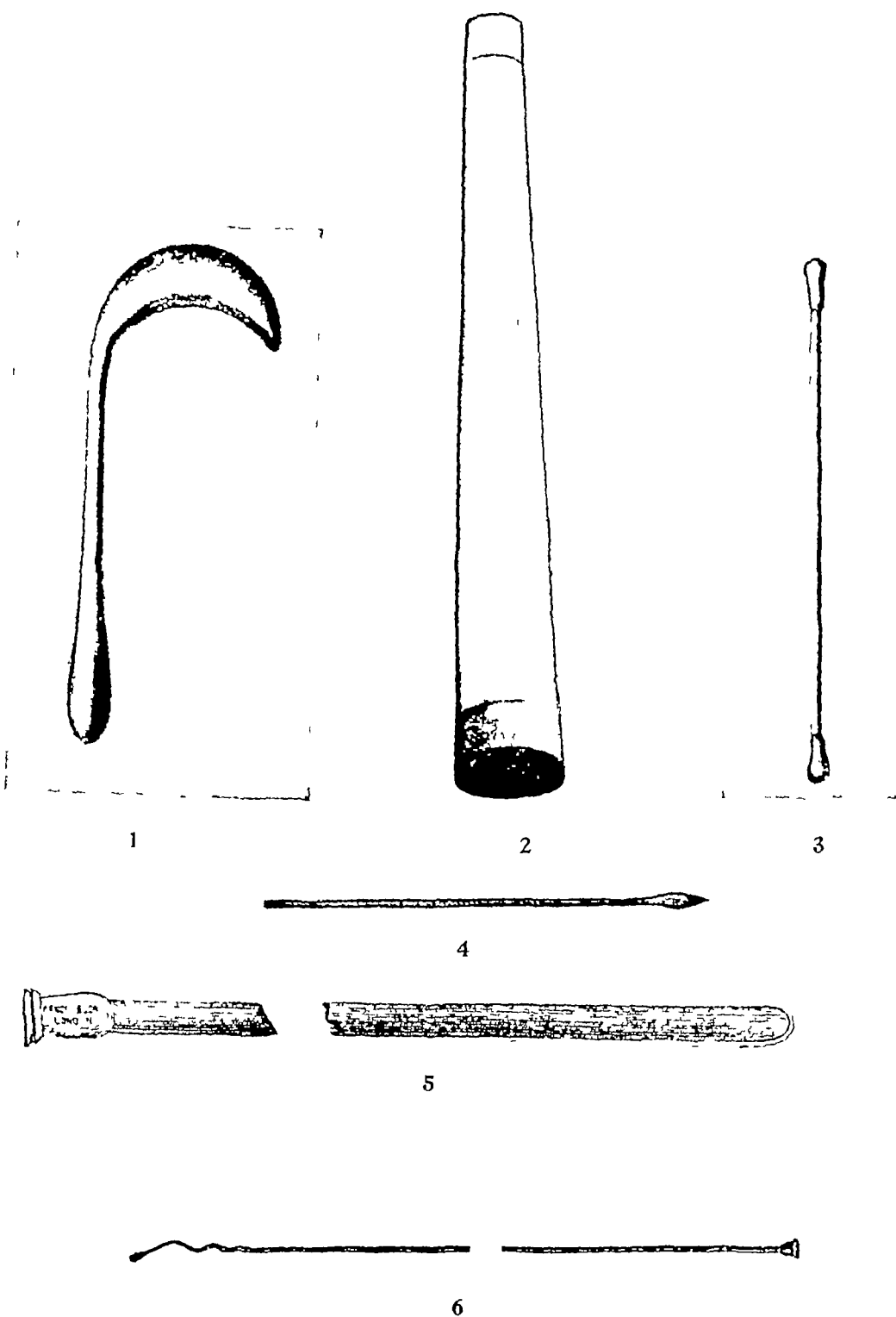


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PATTA OR BANDAGES

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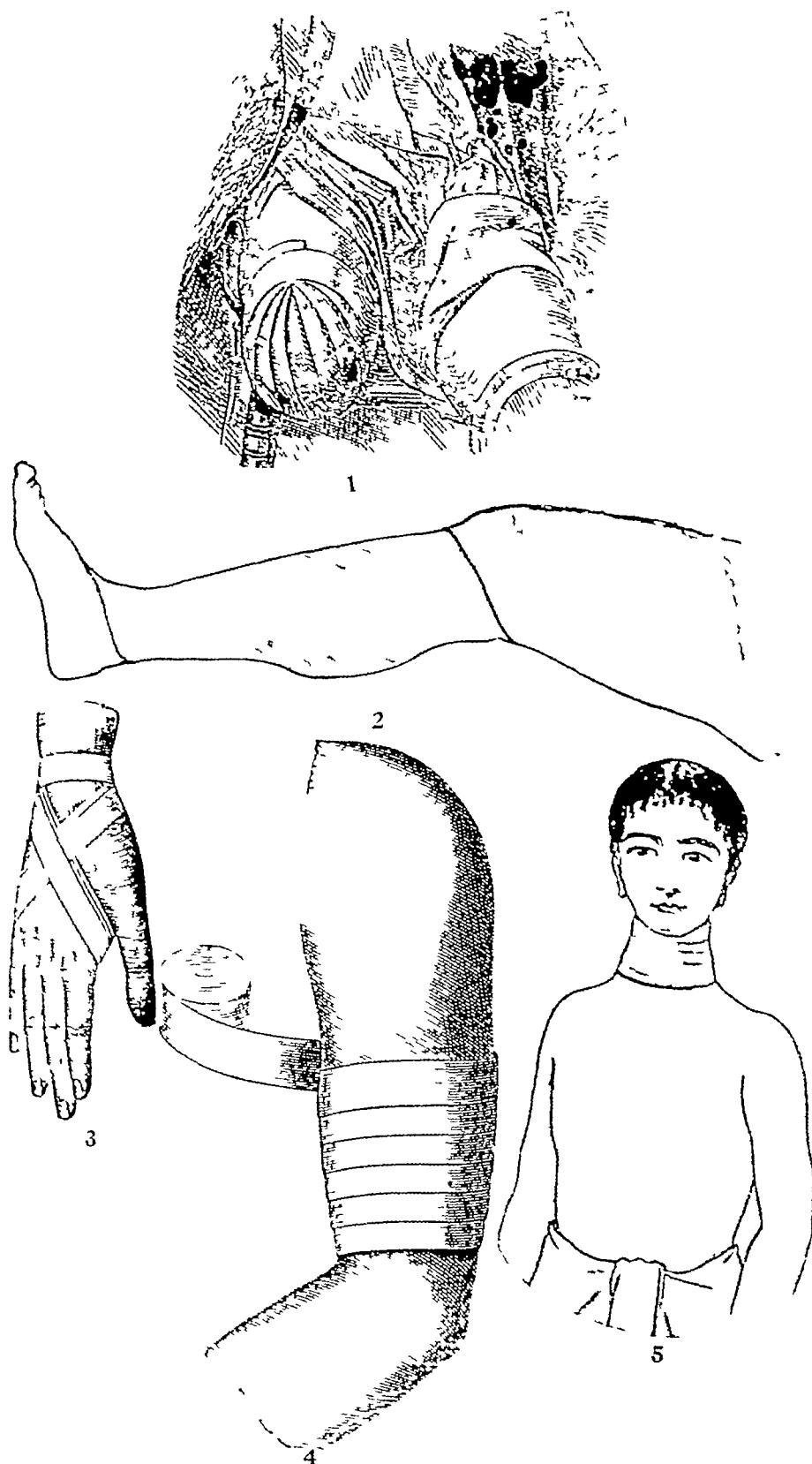


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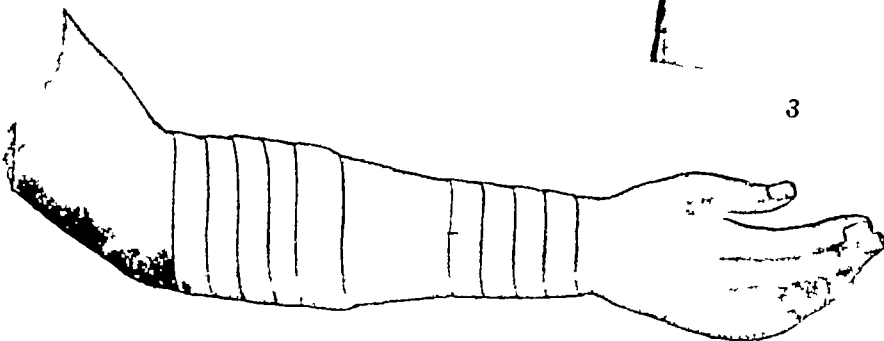
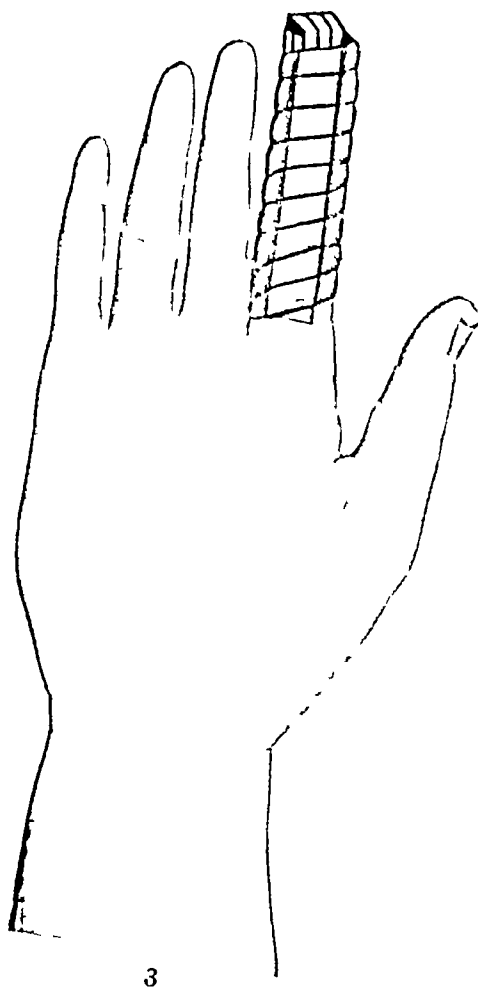
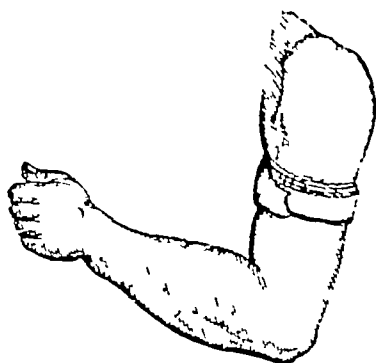
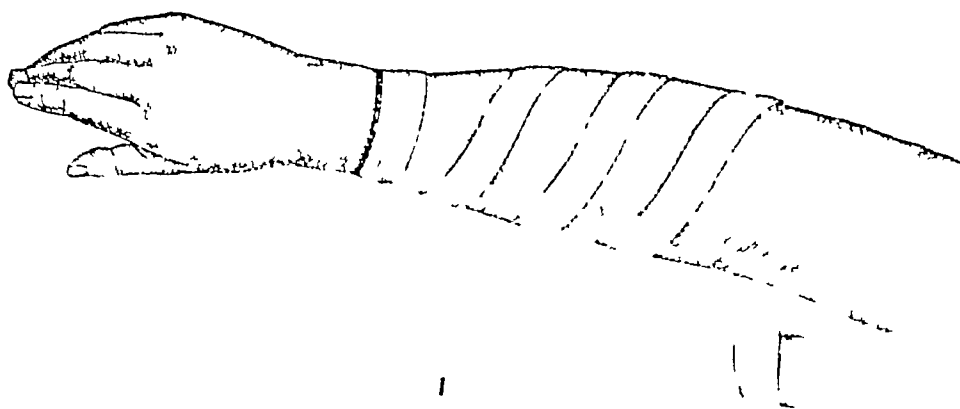


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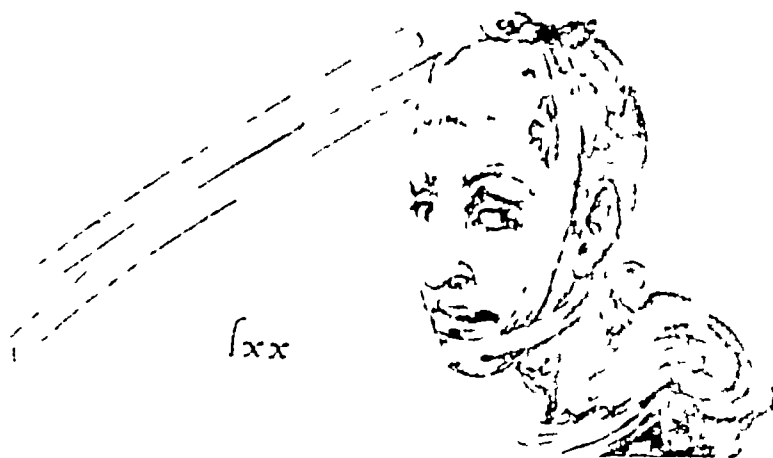


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PLATE XLV

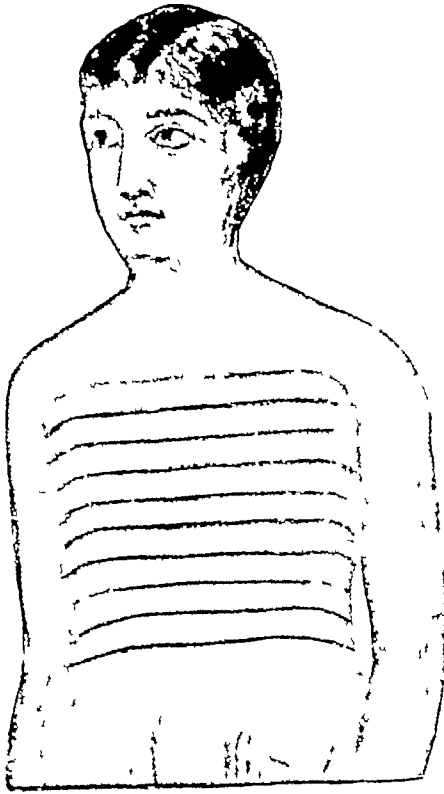
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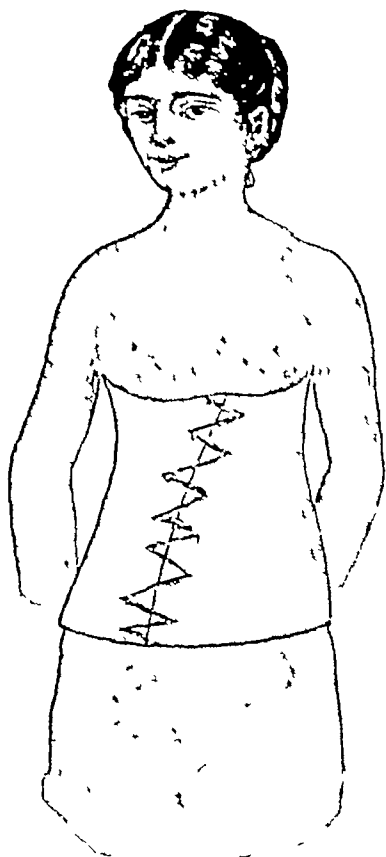
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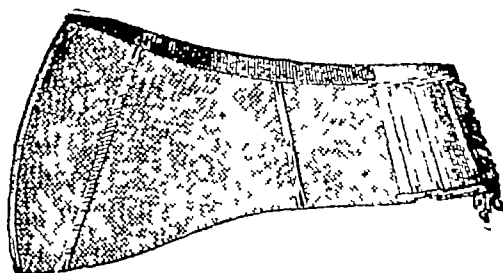
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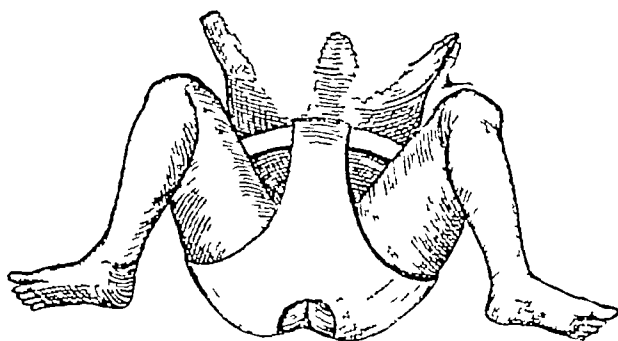
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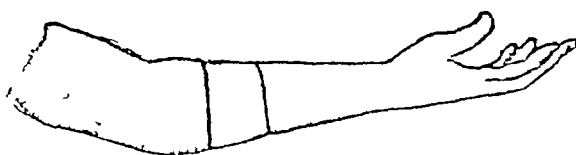
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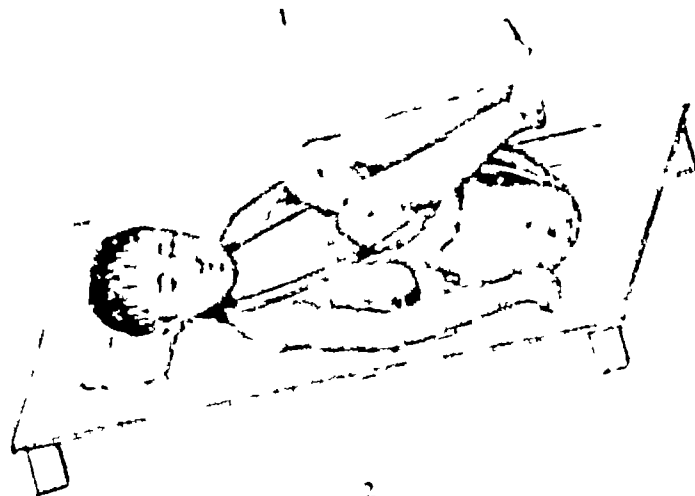
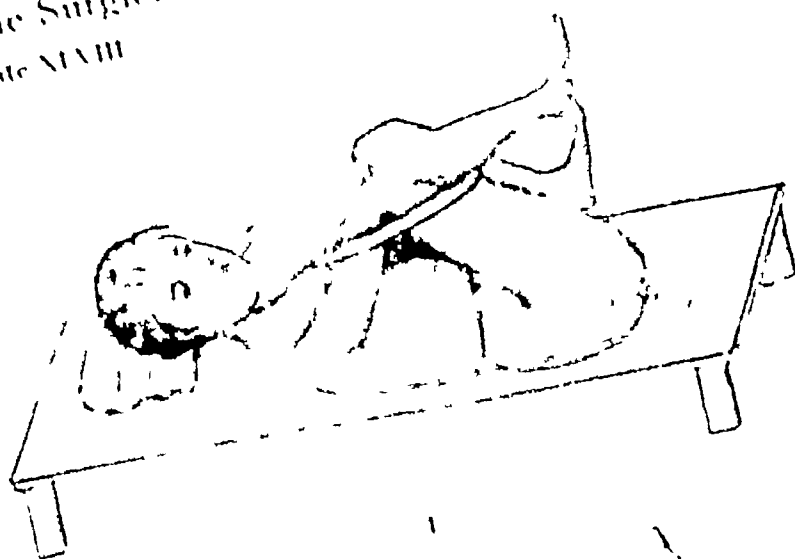
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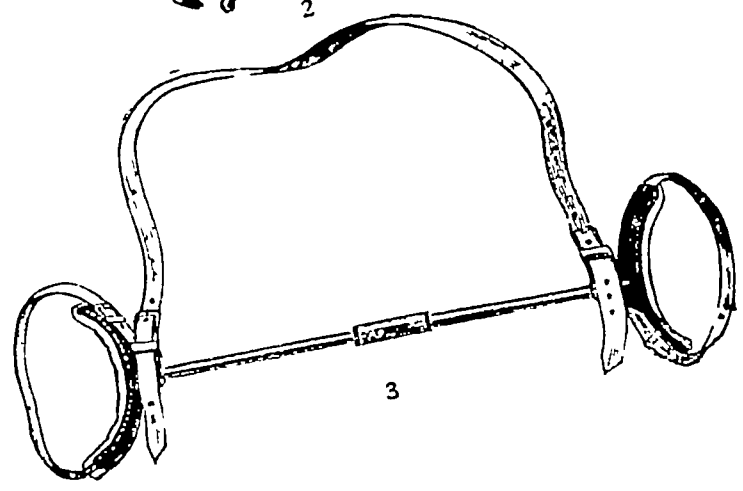
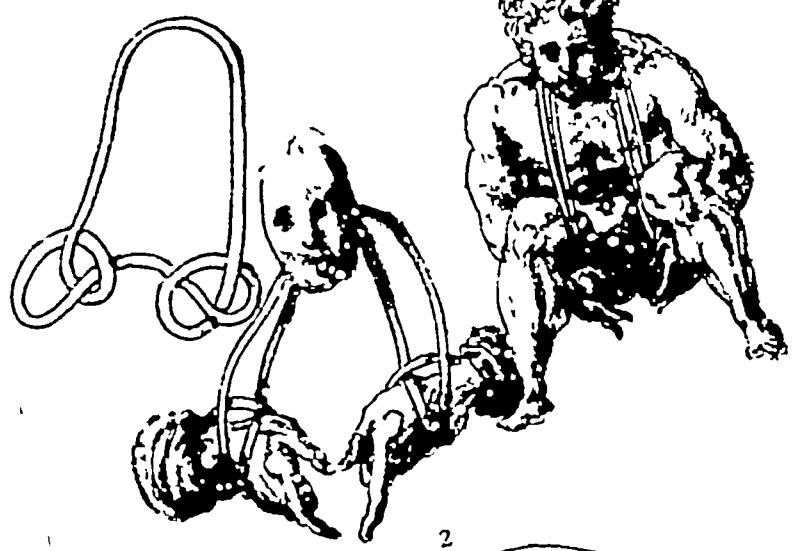
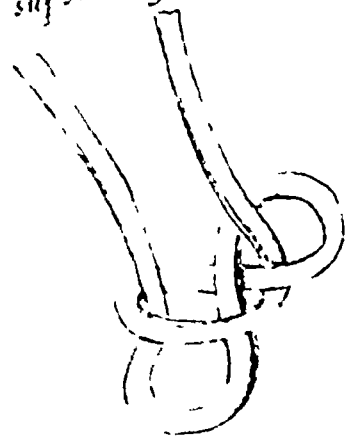


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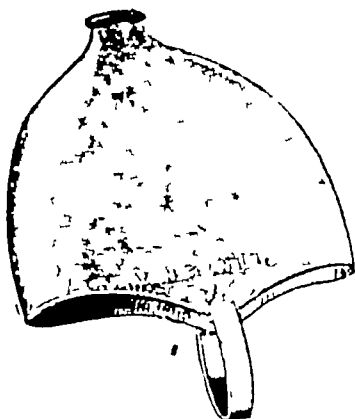
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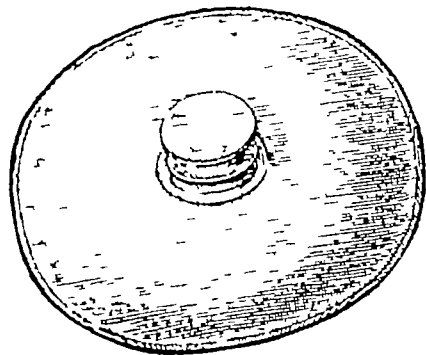
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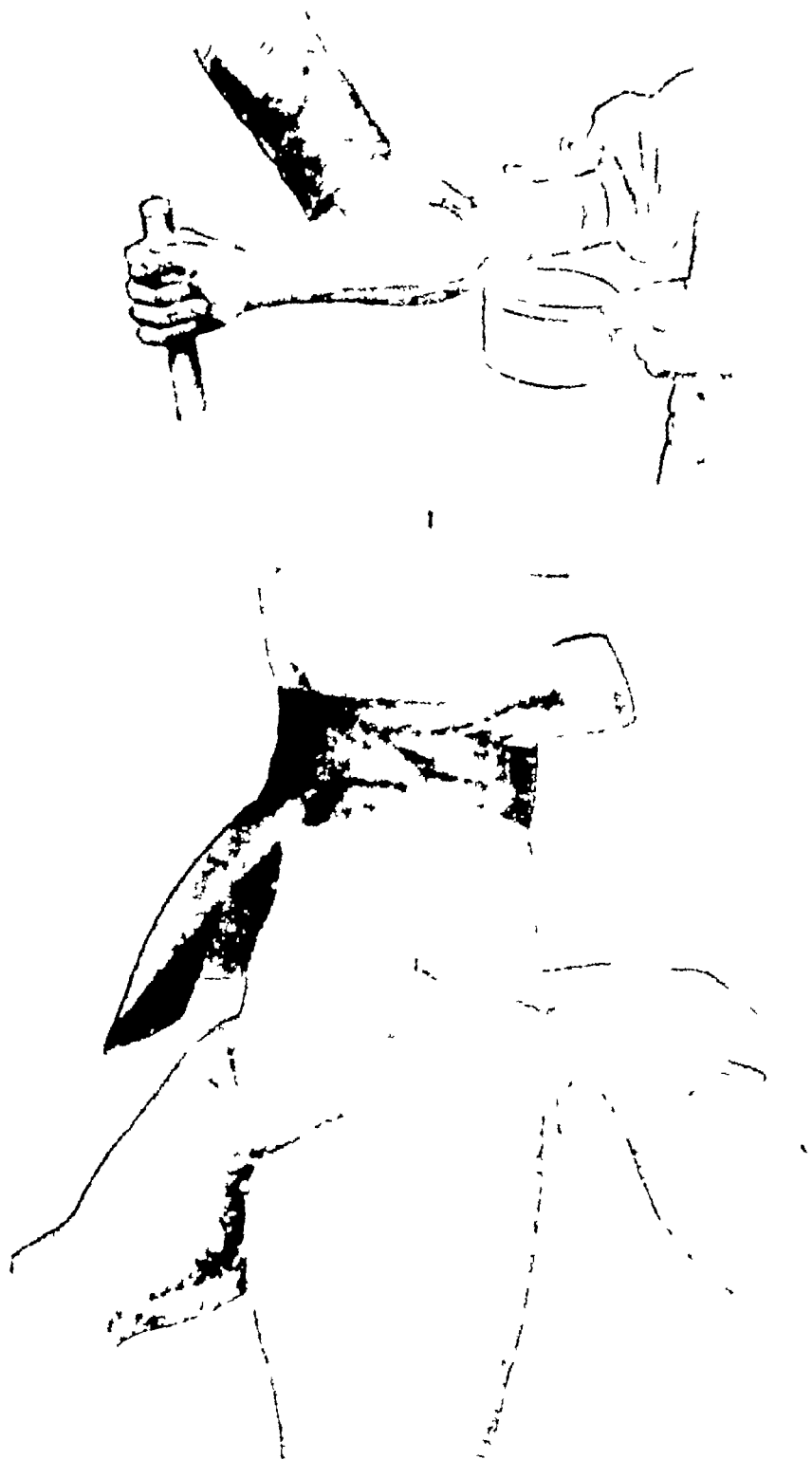


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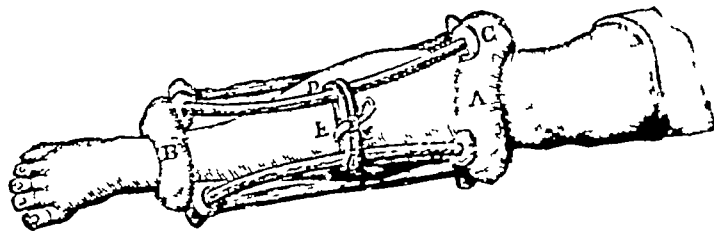
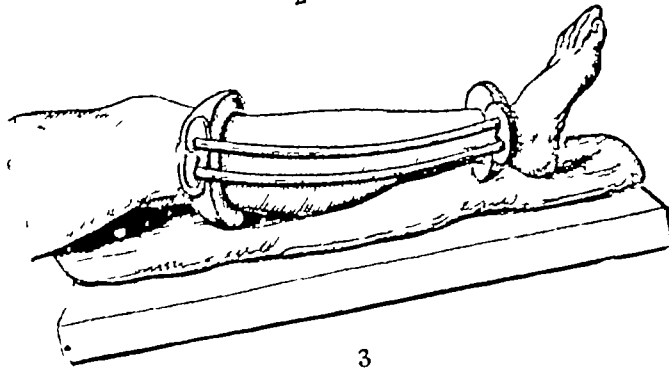
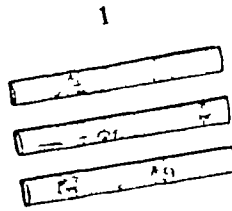
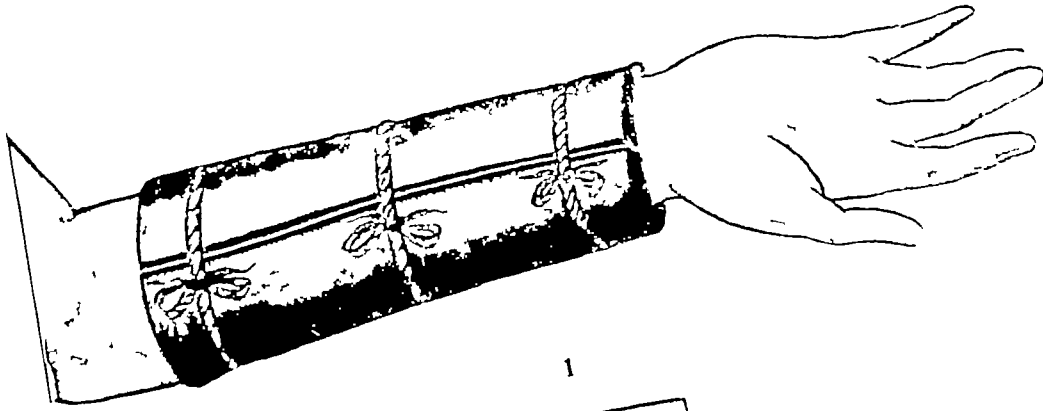


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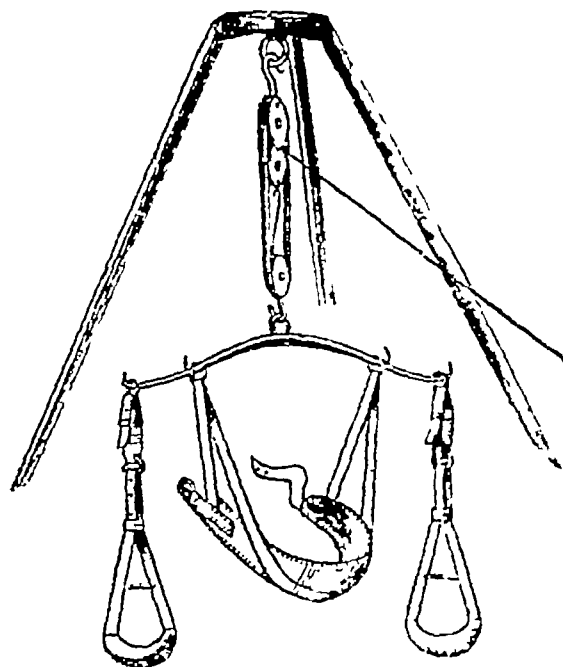
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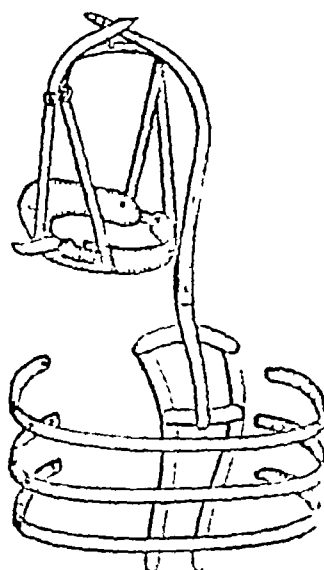
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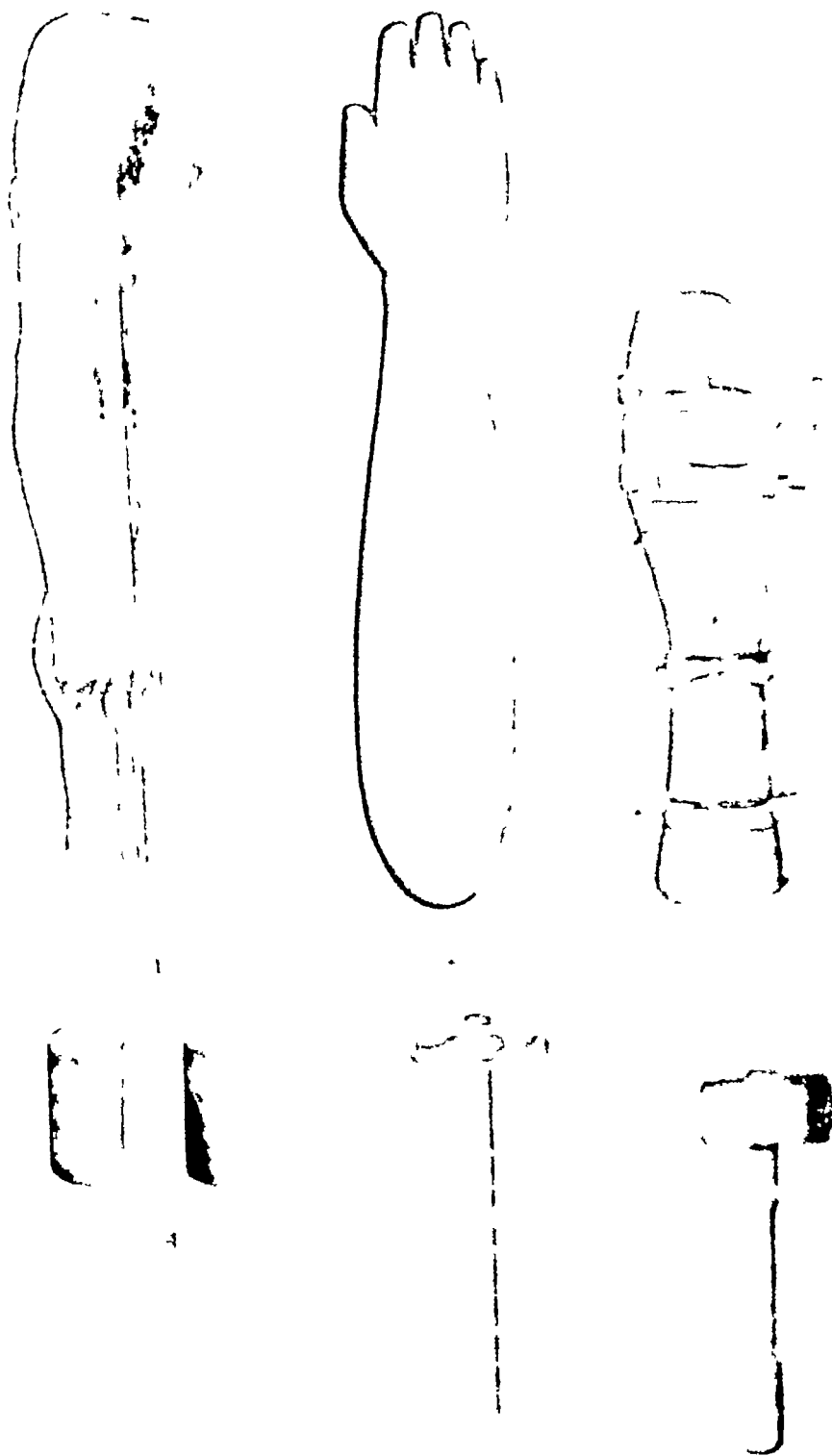


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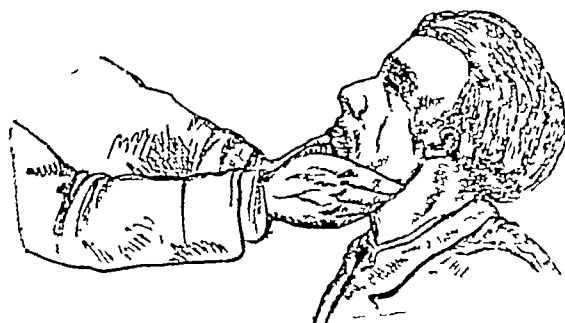
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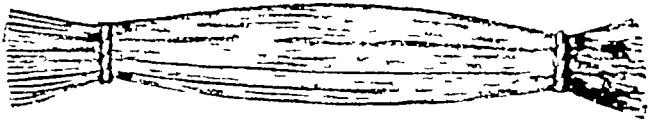
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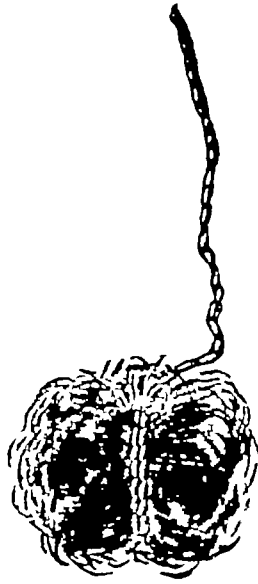
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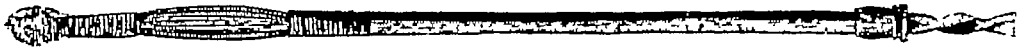
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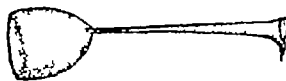
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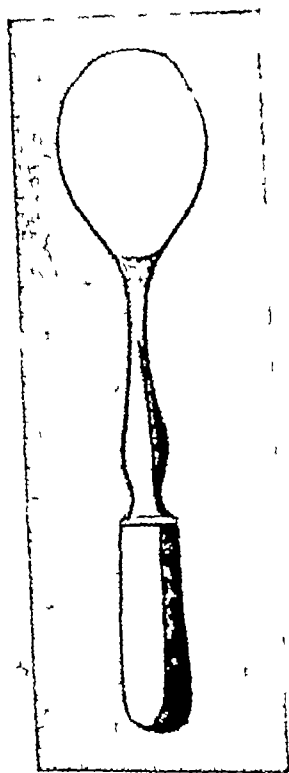
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THE MANDALĀGRA ŚASTRA OR ROUND HEADED KNIFE

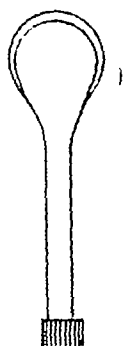
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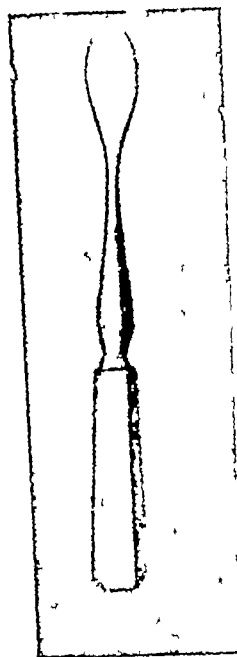
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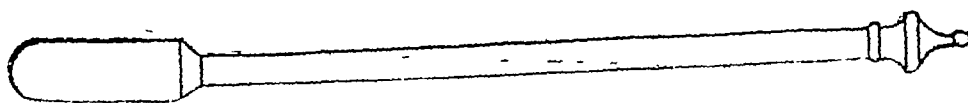
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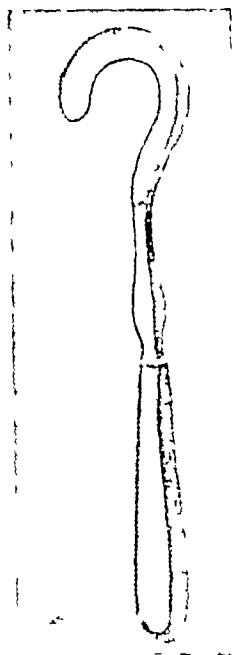
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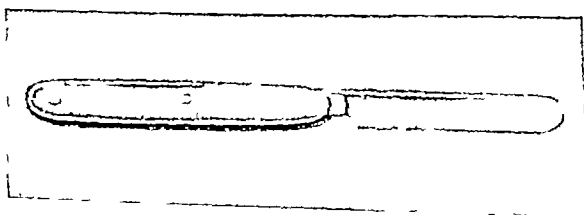
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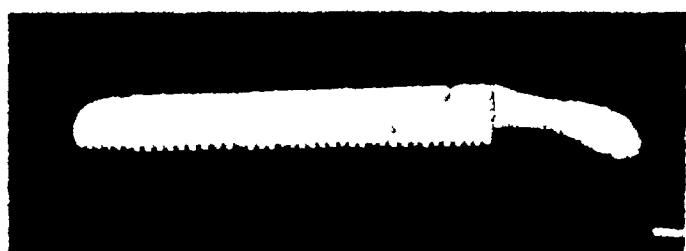
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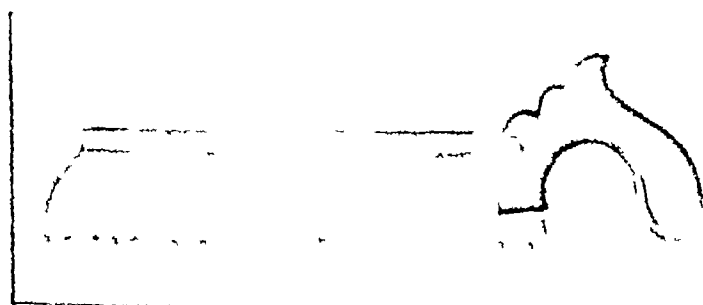
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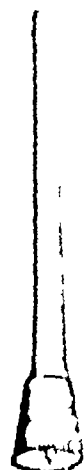
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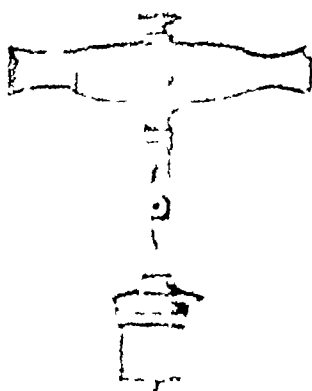
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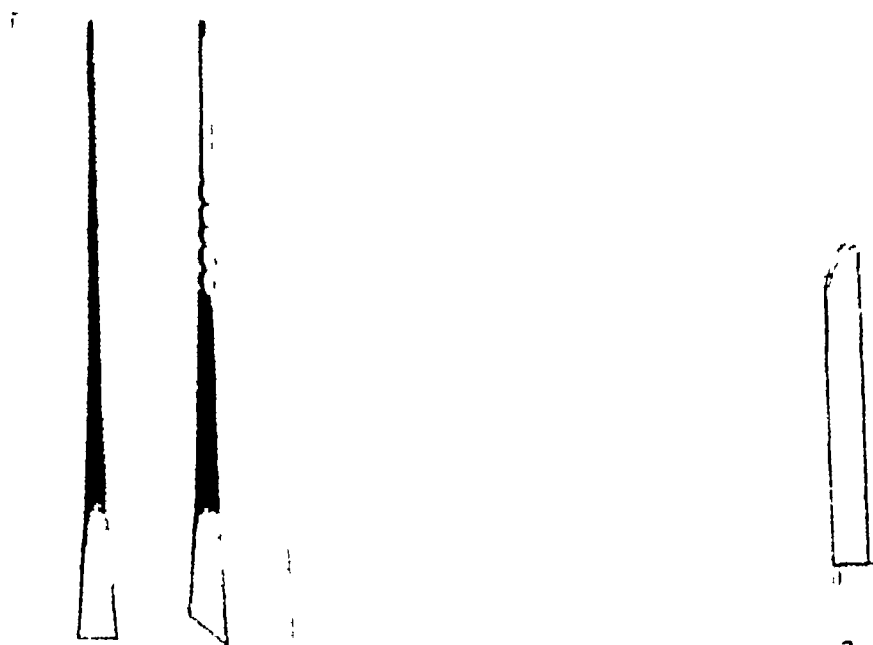
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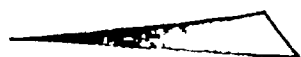
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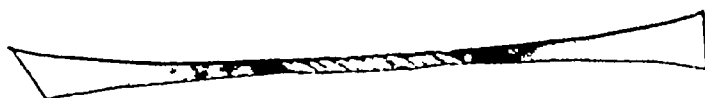


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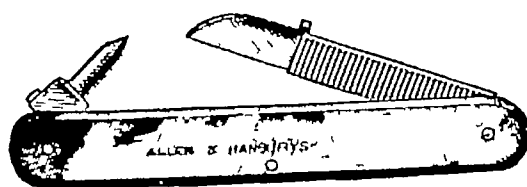
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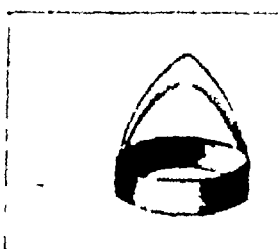
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MUDRIKĀ ŚĀSTRA OR FINGER KNIFE

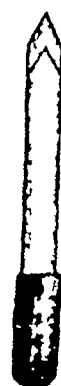
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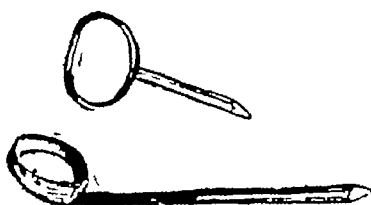
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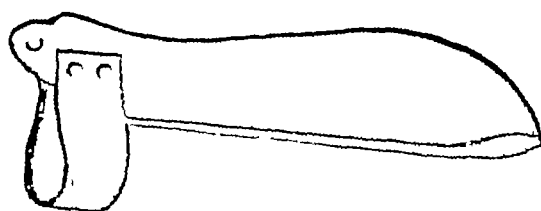
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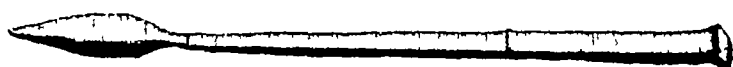
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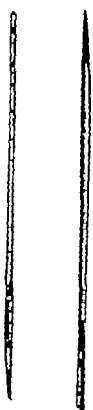
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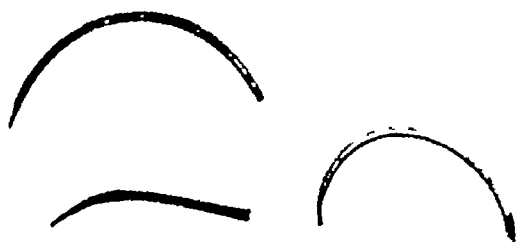
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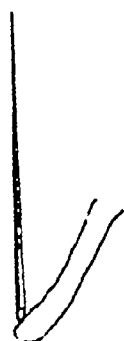
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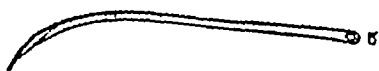
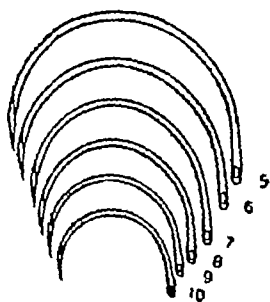
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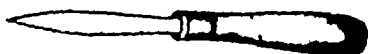
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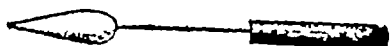
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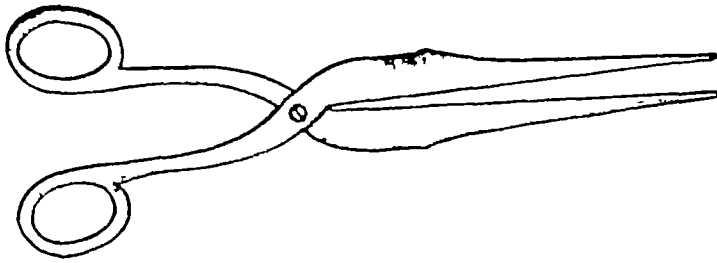
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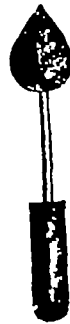
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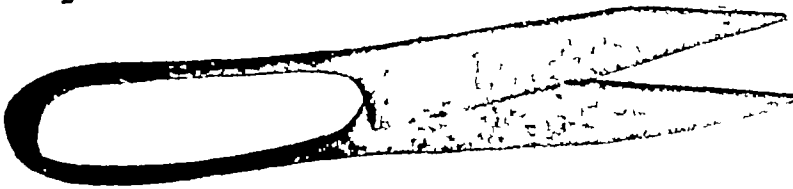
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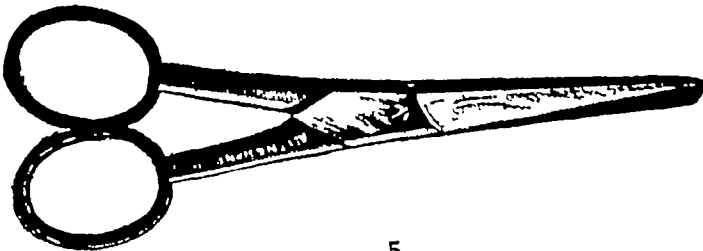
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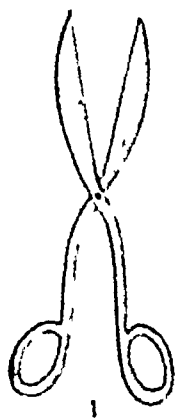
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ANTARMUKHA ŚASTRA OR SCISSORS

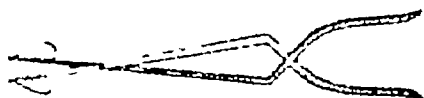
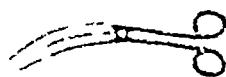
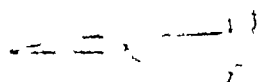
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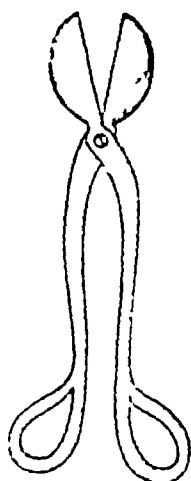
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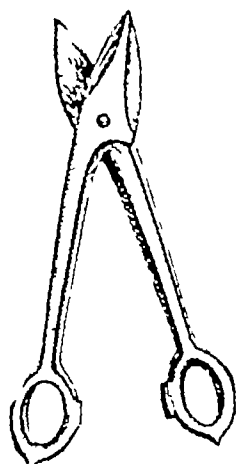
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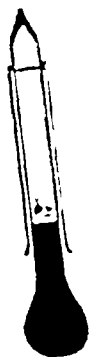
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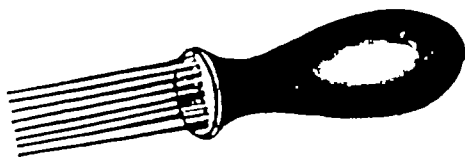
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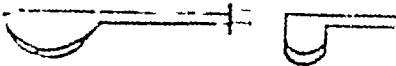
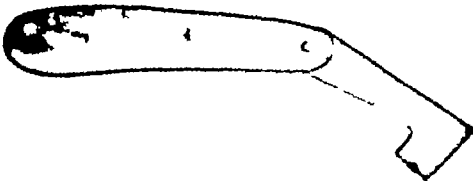
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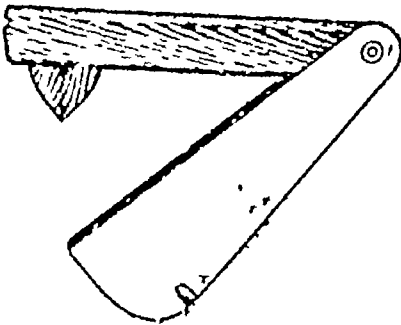
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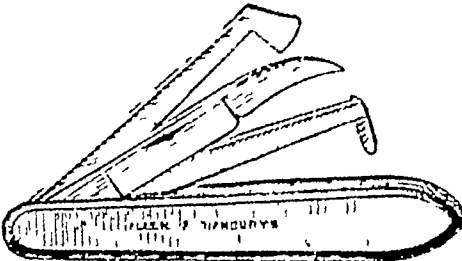
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PLATE LXXI

VRĪHIMUKHA ŚASTRA OR TROCAR

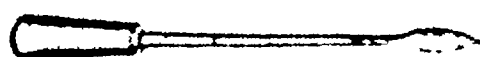
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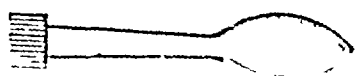
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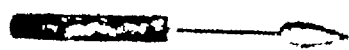
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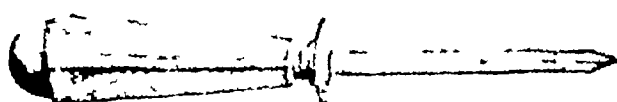
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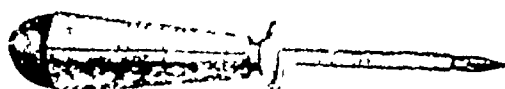
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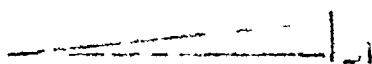
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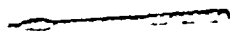
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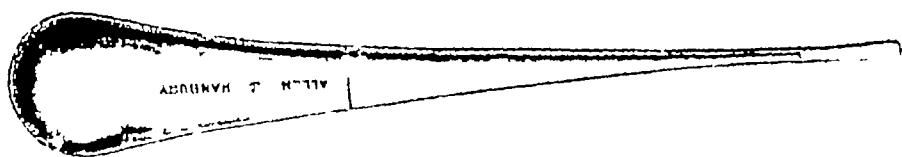
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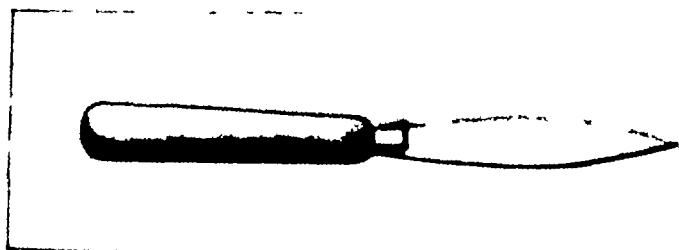
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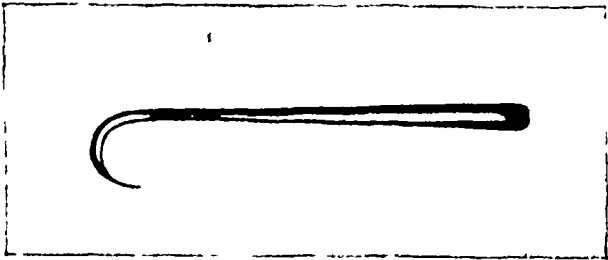
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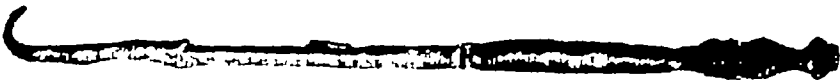
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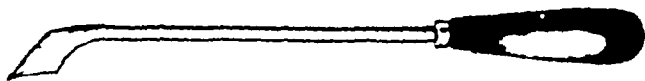
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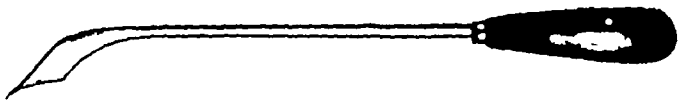
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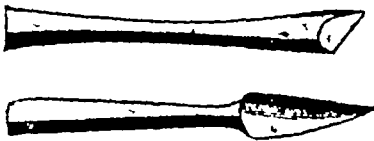
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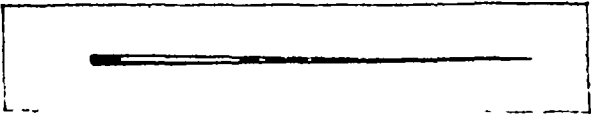
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ESANĪ OR SHARP PROBES.

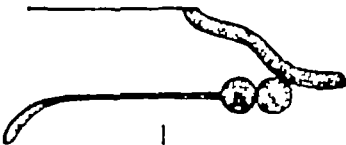
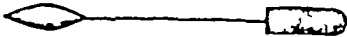
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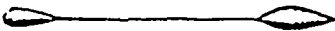
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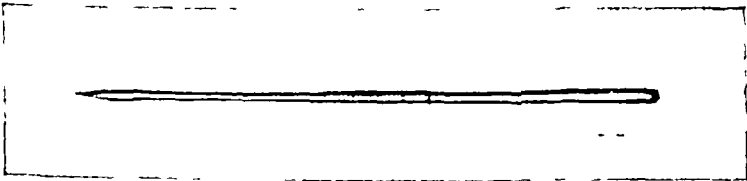
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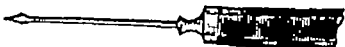
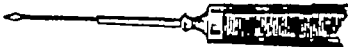
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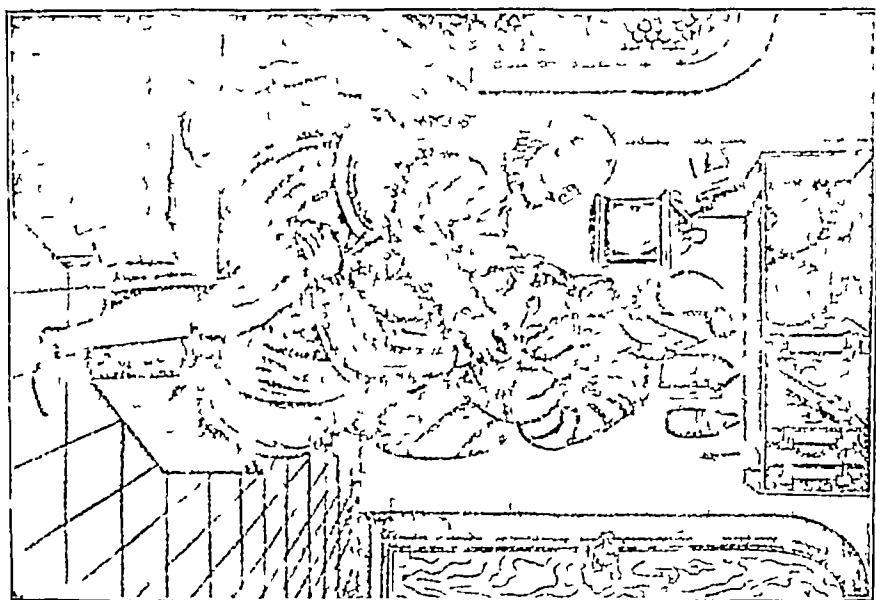
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OPERATION OF CATARACT.

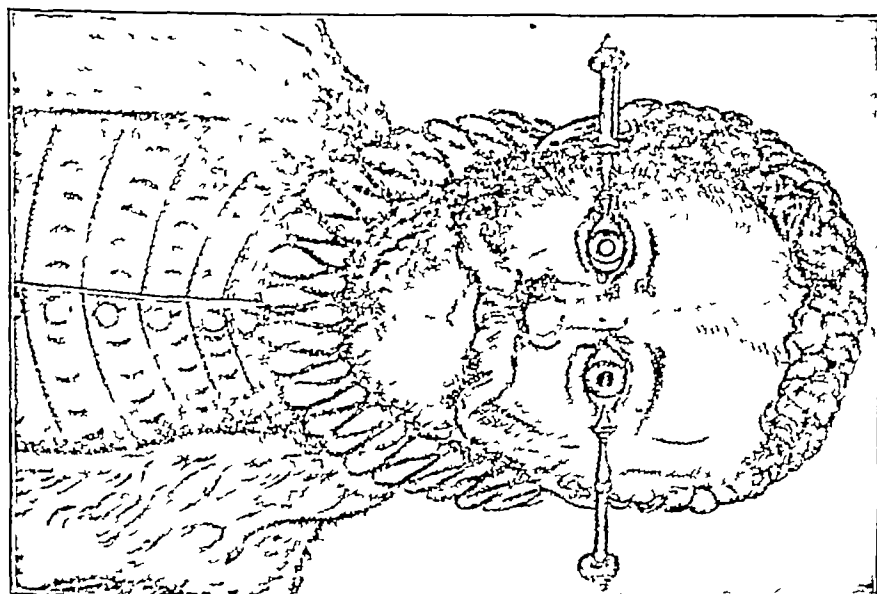
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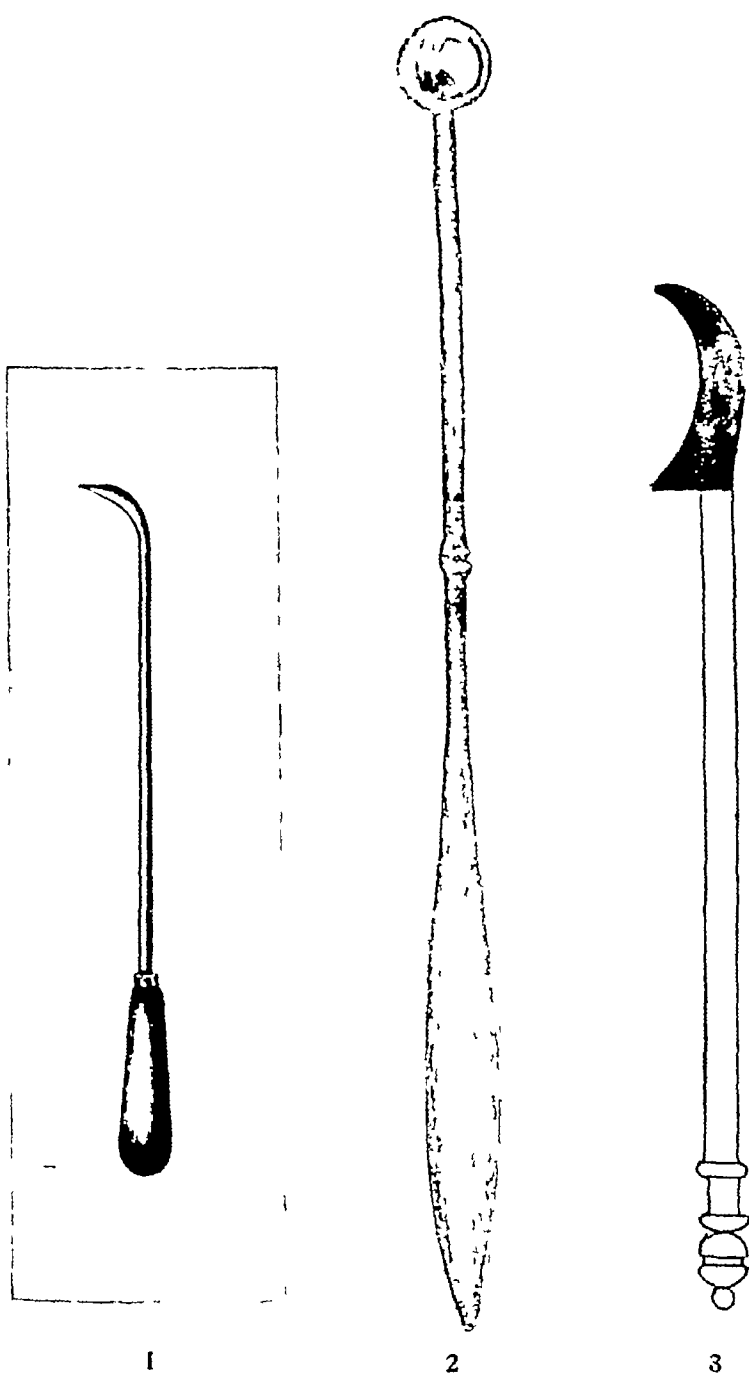
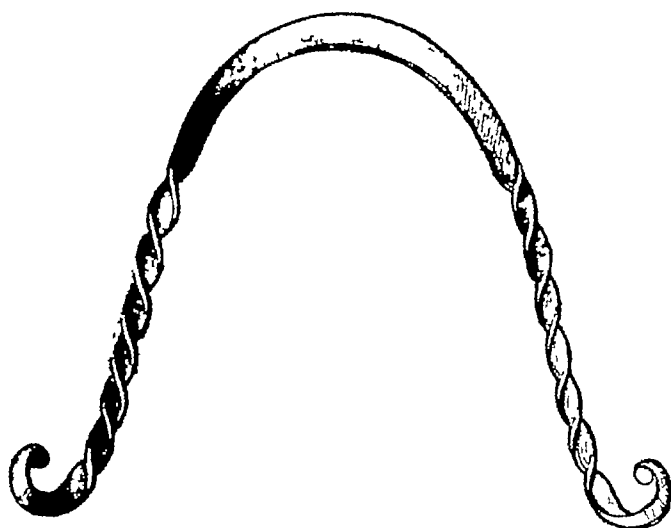


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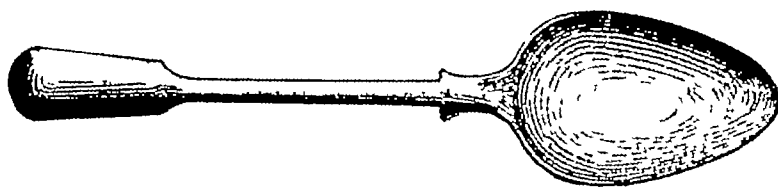
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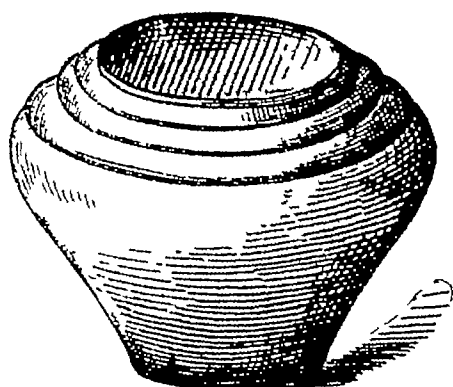
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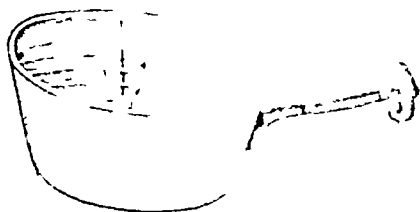
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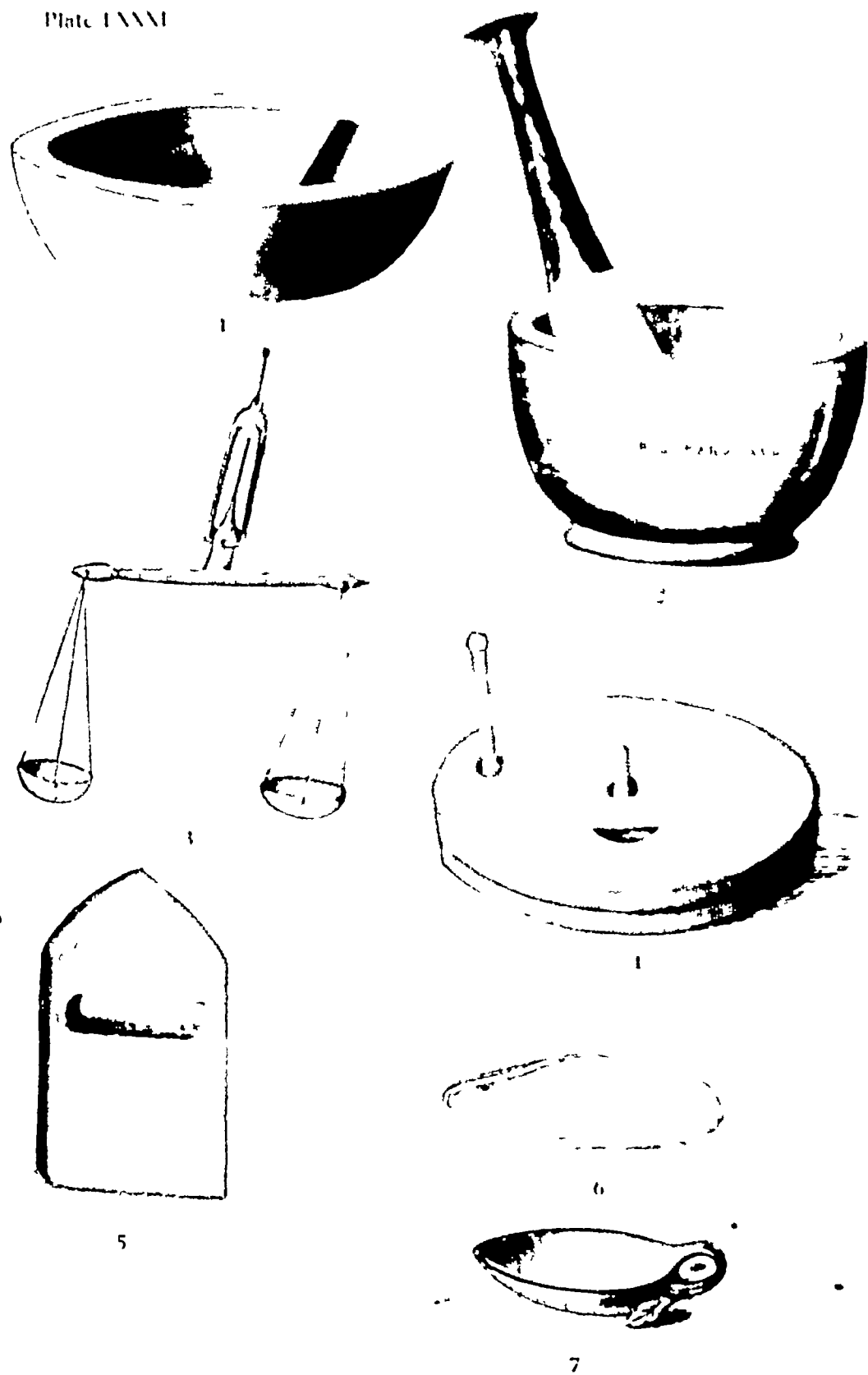


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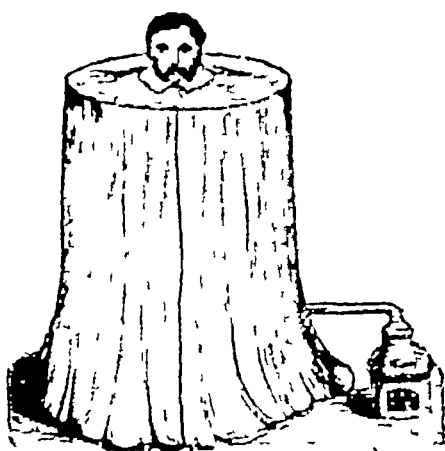
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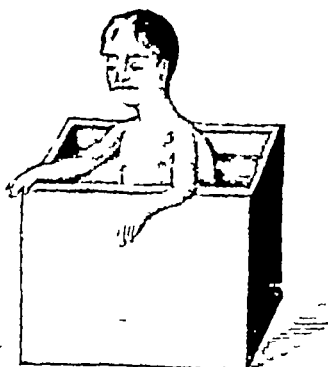
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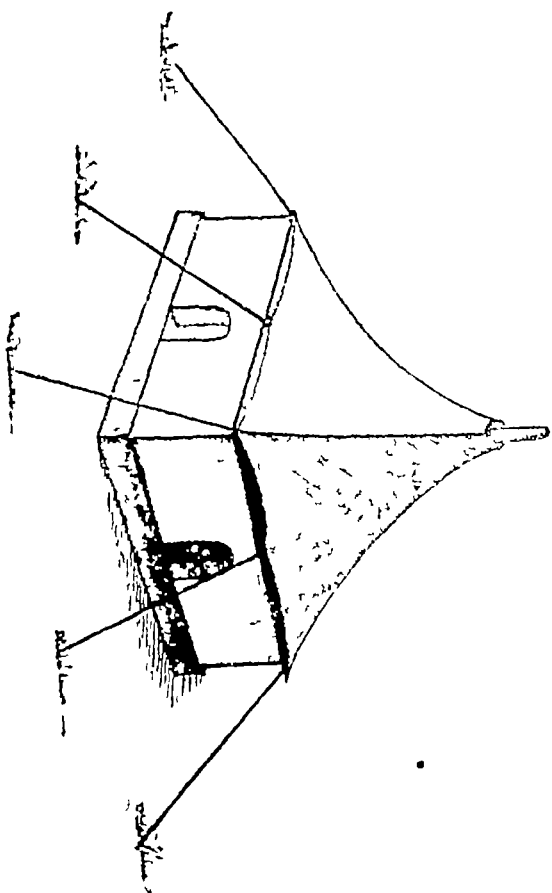
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